CCOF Foundation

By Brian Leahy
CCOF President

Establishing organic agriculture as the “conventional” form of agriculture will require educating farmers, consumers and policymakers about the health, environmental, social and economic benefits of organic agriculture. This is the role of the new CCOF Foundation.

With our one part-time employee, Jessica Hamburger, a dedicated student intern, Amy Dryden, and volunteer help from the CCOF Foundation Trustees, the CCOF Foundation has taken great strides toward establishing itself as a viable non-profit organization. The Foundation has developed projects, raised funds, produced outreach materials and built relationships that will enable us to better serve the public, organic farmers, and CCOF in the coming year.

The IRS 501(c)(3) non-profit status of the CCOF Foundation has allowed CCOF to place free public service announcements. The San Francisco Bay Area CBS affiliate has been running a 15-second spot that encourages consumers to find healthy local organic food for their families by visiting the CCOF website.

In perhaps the most difficult year to establish a new foundation since 1933, the CCOF Foundation has generated close to $200,000 in grants and contracts. The money will fund four projects that will be implemented in partnership with CCOF members and other organizations.

The Going Organic project will support CCOF chapter leaders in providing farmer-to-farmer mentoring in organic conversion.

The Organic Choice project will provide CCOF farmers with materials they can use to educate consumers about the health and environmental benefits of organic food and farming.

The Farms & Wildlife project focuses on a partnership with Salmon-Safe to provide third-party certification of salmon habitat and water quality protection efforts by organic farmers.

The Farms & Wildlife project will also enable CCOF members to gain easier access to technical assistance and cost-share funds for their farming operations from federal and state agencies. In November, we surveyed CCOF members to assess their experience with and interest in USDA Natural Resource Conservation Service (NRCS) programs. This issue of the CCOF Magazine describes the participation of CCOF members in NRCS programs and provides advice to prospective applicants.

The California Organic Farming Energy Efficiency project, in which we will serve as a subcontractor to the firm Global Energy Partners, will provide financial incentives to organic farmers to purchase and install energy efficiency technologies.

We have a new website for the CCOF Foundation that explains to foundations and prospective donors and members who we are and what we do. We also have developed a CCOF Foundation brochure that will attract members and encourage farmers to participate in our programs. We expect individual donations and membership dues to be an initially small but growing source of financial support that will supplement grant income. Please encourage your friends, neighbors and customers to make a tax-deductible contribution to the CCOF Foundation!

With certification, CCOF was able to take a vague concept, organic agriculture, and working with other like-minded groups, develop a definition, get it written into federal law, and then fight to protect the integrity of the definition. Now, any consumer in the United States can walk into a retail store and know that the word “organic” on a food product has a meaning and a process behind it. In the next 30 years, the CCOF Foundation will strive to convince consumers, producers, and policy makers that organic agriculture is the only sane choice for the production of food.

Our Purpose
CCOF’s purpose is to promote and support organic agriculture in California and elsewhere through:

• A premier organic certification program for growers, processors, handlers, and retailers.
• Programs to increase awareness of and demand for certified organic product and to expand public support for organic agriculture.
• Advocacy for governmental policies that protect and encourage organic agriculture.
Welcome to Our New Staff!

Jake Lewin, Director of Marketing & International Programs

Peggy Miars, Communications Director

Submissions to the CCOF Magazine

Letters to the editor are gladly accepted, provided letters are succinct and remain on topic. Letters must include complete contact information, including daytime telephone number, and must be signed. Letters are subject to editing and will not be returned. Submitting a letter to the editor does not guarantee printing.

For information about submitting articles to CCOF Magazine, or to discuss article ideas, please contact Keith Proctor toll free at 1-888-423-2263, ext. 12, or e-mail to keith@ccof.org

Advertisement Policy & Rates

Classified line ads cost $10 per line. Seven words equal one line. There is a three-line minimum. Payment for line ads is required in advance. Line ads are free for CCOF Certified clients. Classified line ads will be posted on our website for three months at no additional cost. Web-only advertising available. (www.ccof.org/classifieds.html).

To place a classified advertisement or to receive a quote, contact Keith Proctor at 831-423-2263, ext. 12, fax 831-423-4528, or keith@ccof.org. Advertisements submitted via e-mail are greatly appreciated.

To place a display advertisement, please contact Kenny Swain, Marketing Assistant, at ext. 22 or kenny@ccof.org to inquire about rates or for more information.

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Eco-Audit

Environmental Benefits of Using Recycled Paper

CCOF Magazine is printed on New Leaf Opaque 70# paper, 80% recycled, made with 80% post-consumer waste, and bleached without the use of chlorine or chlorine compounds, resulting in measurable environmental benefits. New Leaf Paper has provided CCOF with the following report of the annual environmental savings:

19 Trees
7.450 Gallons of water
849 Pounds of solid waste
3 Cubic yards of landfill space
10 Million BTUs of energy (0.1 Years of electricity required by the average US home)
1,623 Pounds of greenhouse gases (1,419 miles equivalent driving the average American car)
5 Pounds of air emissions (HAPs, VOCs, TRSs combined)
52 Pounds of hazardous effluent (BODs, TSSs, CODs, AOXs)

1 Environmental benefits are calculated based on research done by Environmental Defense, the other members of the Paper Task Force, and Conservatree, who studied the environmental impacts of the paper industry. Contact ED for a copy of their report and the latest updates on their data. Hazardous Air Pollutants (HAPs), Volatile Organic Compounds (VOCs), and Absorbable Organic Compounds (AOX).

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DISTRIBUTION

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California Certified Organic Farmers

1115 Mission Street • Santa Cruz, CA 95060 • 831-423-2263 • 831-423-4528 (FAX) 888-423-2263 (toll free) • General e-mail inquiries: ccof@ccof.org • Website: www.ccof.org

Anna Alexis Dery was born on October 19, 2003 to her proud parents: Paolo Legarre (Kern R&R) and her husband, Bobby. Anna weighed 7 lbs., 14 oz. and was 20 ½ inches long. Paolo and baby are doing well. Congratulations to the newest member of the CCOF Family!
Consolidation in Food and Agriculture

Implications for Farmers and Consumers

By Phil Howard, Postdoctoral Researcher, Center for Agroecology and Sustainable Food Systems, UC Santa Cruz

While grocery store shelves appear to provide abundant choices, most of these products are marketed by a small and decreasing number of firms. Gigantic multinational corporations are consolidating their control over our food system, including the organic sector. The trend raises concerns about how this power is exercised, as most of these corporations are accountable to their shareholders, not to the communities in which they operate. While the situation may currently appear bleak, corporate dominance is being challenged by groups that have been adversely affected, such as farmers, workers and consumers.

The Dynamics of Consolidation

The food system can be thought of as a long chain, with food passing through a number of steps or links in the chain on the way from farmers to consumers, such as food storage and processing. In 1999, Dr. William Heffernan and his colleagues at the University of Missouri identified a worrying trend—the emergence of clusters of firms that are working to put a padlock on this chain and control it from “the gene to the supermarket shelf.”

There are three processes by which this is occurring: 1) horizontal integration, 2) vertical integration, and 3) global expansion.

Horizontal integration refers to consolidation of ownership and control within one stage of the food system, such as processing, for one particular commodity. Heffernan and colleagues have been documenting the ratio of the market share of the top four firms in a specific industry compared to the total market, called the concentration ratio (CR4), since the mid-1980s. The CR4 is important because economists suggest that when four firms control 40% of the market, it is no longer competitive. This means that the largest firms will have a disproportionate influence on not just the price of a commodity, but also the quantity, quality and location of production. The table below shows the CR4 ratios for a number of food commodities, indicating the current extent of horizontal integration. All of these ratios exceed the 40% threshold, and have been increasing over the last few decades.

The second process, vertical integration, involves linking firms at more than one stage of the food chain through these processes of horizontal integration, vertical integration and global expansion. The links may be through formal

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<th>Concentration ratios of the top agricultural firms, 2001</th>
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<td>Turkeys (Hormel, ConAgra, Cargill, Pilgrim’s Pride)</td>
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The third process, global expansion, is the attempt by agribusiness firms to increase their market share worldwide. This is most apparent on the retail end of the food chain, as some analysts have predicted there may soon be only 6 global food retailers. A massive wave of mergers has been occurring in this industry recently, spurred by the recent entry of Wal-Mart into food retailing and its expansion to other continents (such as South America and Europe). In fact, Wal-Mart may be the only US-based company big enough to compete with European firms like Carrefour, Ahold and Metro (each of which has stores in more than 20 countries). Before Wal-Mart became a major player in food sales the top 5 retail chains in the US controlled less than a quarter of the market (1997 data). Current estimates suggest that the top 5 now share more than half the market.

Food chain clusters are formed when groups of firms join together to control every step in the food chain through these processes of horizontal integration, vertical integration and global expansion. The links may be through formal
or informal agreements, including mergers, acquisitions, joint ventures or strategic alliances. Although their boundaries are constantly shifting, several potentially emerging clusters have been identified. For instance Cargill and Monsanto form a cluster, with Monsanto providing genetic material and seeds, and Cargill involved in grain collection and processing, and meat production and processing. Kroger, the largest supermarket chain in the US, is linked to this cluster through an agreement with Cargill to receive case-ready meat. DuPont/ConAgra and Novartis (Syngenta)/ADM have similar ties. Although predictions are very difficult, based on other industries that have formed global oligopolies rather than monopolies (such as automobiles, pharmaceuticals and oil) there are likely to be as few as four to six clusters worldwide.

EFECTS OF CONSOLIDATION

The implications of what such a system will mean for farmers can already be seen in the poultry industry in the US. Ninety-five percent of chickens produced for meat are grown under production contracts with fewer than 40 companies. The farmer furnishes the land and labor, and is required to invest hundreds of thousands of dollars for buildings and other equipment. The company provides the chicks, feed and medicine and agrees to pay a guaranteed price per pound. In the 1950s, when there were more than a thousand companies, most poultry farmers benefited from such contracts because they were protected from price fluctuations. Now that four vertically integrated firms control 50% of the market, the terms of the contracts are much more favorable to the companies. Their power is so great that some companies have been found to cheat farmers systematically by underestimating the weight of birds, overestimating the weight of feed, or providing poor quality chicks or feed. A farmer who complains is likely to have their contract canceled and be placed on a blacklist. Although most poultry farmers are making poverty level wages or below, without a contract they cannot pay off their mortgages, and therefore face foreclosure. Some cynics have suggested “why buy the farm when you can own the farmer?” and describe chicken farmers as “serfs” who are never able to escape their debts.

Grain and vegetable growers may soon find themselves in a similar situation. Genetically engineered (GE) crops are controlled by just six multinational corporations, and the technology is being used as a tool to consolidate the seed supply. Crop farmers are then being locked into food chain clusters through “bundling,” or linking patented seeds with contracts, chemicals and credit. Monsanto’s Roundup Ready seeds can only be used with Roundup herbicide, even though cheaper versions of this herbicide are available. Pioneer DuPont seed gives better interest rates on financing, depending upon how much “approved” products the farmer buys, and approved chemicals include those from Syngenta, Bayer/Aventis, and Dow. The precedent set with GE seeds is also being extended by bundling chemicals and other inputs with conventional seeds. In the UK, Syngenta’s hybrid barley can only be purchased in conjunction with the company’s growth regulator and fungicides.

Consumers are also harmed by consolidation. GE foods have been introduced into the food system without public consent, or even public knowledge, as recent polls have shown, thus limiting the freedom to choose non-GE products. Price gouging is another way that food conglomerates may exploit their increasing power. Although farm milk prices are the lowest they have been since the 1970s, prices paid by consumers have not declined. Consumers Union has reported high retail milk prices at California supermarkets when compared to smaller markets, and suggested these prices do not follow farmer and processor costs. A recent class action lawsuit accused two major supermarket chains of fixing the price of milk over a four-year period, costing consumers up to $125 million. This is somewhat of an exception, however, as most food prices have remained low over the past few decades (aside from products like carbonated beverages, snacks and breakfast cereals, which are already dominated by a small number of brands). Although consumer pocketbooks have been much less affected by consolidation than farmers and workers, this situation may change if a handful of food chain clusters gain control of the global food supply.

CONSOLIDATION IN ORGANIC

Organic agriculture is not immune to these trends. Many organic brands have been acquired by giant food processors such as General Mills, Kraft (Philip Morris) and Kellogg, as the accompanying diagram indicates (see page 5). Slightly smaller global food processors not shown in the diagram are also establishing their own organic product lines (such as Dole, Chiquita, and McCormick & Co.) or acquiring existing organic brands (J.M. Smucker bought R.W. Knudsen, After the Fall and Santa Cruz Organic; Novartis subsidiary Gerber’s bought Tender Harvest). The market share for some of these brands is extremely high—Horizon, White Wave and Earthbound Farms control over 60% of the market for organic milk, organic soymilk, and organic bagged salad mix respectively. Earthbound Farms is a brand of Natural Selection Foods and a vertically integrated “seed to salad” operation—it contracts with over 200 growers. It is one of just five farms that market half of the organic produce sold in California.

In the rapidly consolidating food retailing industry, the top 4 supermarkets—Walmart, Kroger, Safeway and Albertson’s—are increasing the amount of shelf space devoted to organic products. Kroger, for example, has a natural and organic section in 43% of its 2400 stores. Fast growing natural foods chains such as Whole Foods (currently the 21st largest supermarket by sales), Wild Oats and Trader Joe’s have had success with their own brands of organic products, prompting mainstream retailers such as Kroger, Safeway, Piggly Wiggly and Harris-Teeter to introduce organic brands as well. Such growth is unlikely to benefit small farms because many supermarkets no longer allow managers to buy directly from local farmers or food processors. Instead, these corporations prefer to deal with operations that can supply huge volumes for their increasingly centralized supply chains.

CHALLENGES TO CONSOLIDATION: ALTERNATIVE FUTURES

Despite the predictions of some economists, this global industrial food system is not inevitable. Dr. Mary Hendrickson and Dr.
Heffernan believe that although the current system appears very powerful, it also has potential weaknesses. They state, "To succeed, (alternative agriculture) movements must organize where the dominant system is vulnerable—by making ecologically sound decisions, by relying on time and management rather than capital, and by building authentic trusting relationships that are embedded in community." Examples of this approach can include CSAs (Community Supported Agriculture), roadside stands and farmers’ markets that connect consumers directly with local farms. Other emerging alternatives include farmer marketing cooperatives with retail brands (such as Organic Valley), and ‘eco-labels’ that represent ecological and social criteria that go ‘beyond’ organic. These eco-labels include: ‘fair trade’, which guarantees a fair price to the farmer and a fair wage to farm workers; ‘humane’, which assures consumers that livestock have been treated humanely; and region-specific labels.

The power of food conglomerates is also being challenged in the political arena:

In 1998 South Dakota voters passed by a constitutional amendment that placed

### MAJOR FOOD COMPANIES ENTER THE ORGANIC MARKET

**Kraft (Altria Group Inc./Philip Morris)** has purchased **Organic Milling’s Back to Nature** organic cereal brand. Details of the sale have not been disclosed, but the brand posted $10 million in revenue in 2002. Kraft already owns Boca Burger and Balance energy bars. Back to Nature will remain a separate business and will not be added to the Post Cereals line. Kraft will, however, reformulate some of the Back to Nature products, and “make other changes to ensure that we meet consumers’ needs,” said Kevin Scott, Executive Vice-president of External Development & Strategy and General Manager of Natural & Organic Foods.

**Dean Foods** acquired **Horizon Organic** in summer 2003, purchasing 87% for $216 million in cash and assuming $40 million in debt. Horizon had revenues of $187 million in 2002, and recently announced the marketing of the first certified organic infant formula.

**Frito-Lay** (PepsiCo) has introduced Tostitos Organic Tortilla Chips.

**Nature’s Farm** (Tyson Foods) organic chicken is now available in retail markets in the Northeast.

**Ben & Jerry’s** (Unilever) Homemade division is test marketing organic ice cream in four flavors in San Francisco and Boston.

### CONSUMER TRENDS

According to the Food Marketing Institute’s *Trends in the United States: Consumer Attitudes & the Supermarket 2003*, 70% of households surveyed indicated that their primary store provides natural or organic foods (18% did not, and 12% were not sure).

American consumers spent nearly $36.4 billion on natural and organic products in 2002. Natural products sales increased 6.6% across all sales outlets, while organic product sales rose 17.3% in natural product stores.

### THE SUPERCENTERS ARE COMING

**Wal-Mart** plans to open 40 of their 200,000 square-foot Supercenter stores in California in the next 4 years, beginning in La Quinta, Bakersfield, Stockton, Chico, Redding and Palm Desert. The implications for local economies and California producers are as yet uncertain, but experience elsewhere in the country does not appear to be positive.

A survey conducted in Las Vegas, Dallas and Tampa revealed a shopping cart from Wal-Mart was 17%–39% cheaper than a traditional supermarket with a union work force. Wal-Mart, with food sales of $82 billion, was the country’s largest retailer in 2002, and it expects to account for 35% of US grocery sales by 2007. Estimates are that 400 traditional national grocery outlets will close as a result of Wal-Mart’s expansion.

In Dallas, Wal-Mart grew from eight Supercenters and nine Sam’s Club stores in 1997 to 28 Supercenters and 13 Sam’s Clubs in 2002.

In addition, it opened 10 Neighborhood Markets, smaller stores designed for metro areas that still have the Wal-Mart economies. In response, Winn-Dixie pulled out of the market, closing 15 stores; Minyard Food Stores closed nine markets; and Brookshire Grocery Co. closed another five. Fifteen of the top 100 supermarket chains have filed for bankruptcy or liquidated since Wal-Mart began opening Supercenters.

**ConAgra Sells UAP**

**ConAgra Foods, Inc.** has sold its United Agri Products US and Canadian divisions to Apollo Management LP for approx. $600 million. The sale is the sixth that ConAgra has made in a little over a year as the company moves toward consolidating its business around branded food products. Other units sold are ConAgra’s beef and pork operation, poultry business, canned seafood, and cheese processing.

restrictions on corporate involvement in agriculture (although it was overturned by an appellate court in August, 2003). Fed up with factory hog farms and the application of toxic sewage sludge to farms, two townships in Pennsylvania went further and passed ordinances that declare corporations are not ‘persons’ under the US Constitution. Mandatory payments to commodity promotion boards, or “Checkoffs”, have been ruled unconstitutional for pork, beef, grape and mushroom farmers (the pork and beef decisions are currently still being fought in the court system, but are widely expected to be upheld). Many independent farmers feel these funds help agribusiness at their expense, and courts have agreed that they violate producers’ First Amendment right to free speech and association.

The 2002 Farm Bill included provisions that require labeling the country of origin for perishable agricultural commodities, but the program has been placed on hold until 2006. Surveys have consistently found that more than two-thirds of consumers are willing to pay more for meat and produce from their own country.

Regulations that ban Wal-Mart Supercenters and other “big box” grocery stores have been enacted in Oakland, Martinez, San Luis Obispo and Arroyo Grande in California, and in at least 18 other cities in the US.

Finally, many efforts are underway to create a more decentralized food system, involving both the creation of alternative structures and addressing the political power of oligopolies. In Chicago, for example, an initiative to create a regional organic food system advocates new consumer food cooperatives, farmers’ markets and community gardens, as well as increasing farmland gardens, reducing subsidies to agribusiness and increasing public funding for sustainable food systems.

Consolidation in food and agriculture has many negative consequences for the majority of those who grow, harvest, process and eat food. These include lowering incomes and purchasing power, limiting choices, and harming human, animal and ecosystem health. However the importance of food makes it likely that as more people become aware of these consequences, the power of corporate agribusiness will be more effectively confronted.

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ABOUT THE AUTHOR
Phil Howard is a postdoctoral researcher at the Center for Agroecology and Sustainable Food Systems at UC Santa Cruz where his research addresses the role of consumers in fostering sustainable agriculture. He is a co-author of the “Consolidation in Food Retailing and Dairy” study conducted for the National Farmers Union.

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There are many important causes in this world that need and deserve our support. CCOF’s Certified Members, Supporting Members, and staff believe that one of these causes is organic food. CCOF has been working for three decades to increase public awareness of and demand for certified organic products, and to expand support for sustainable agriculture. CCOF has a long history of helping implement organic legislation, and emphasizes public education on the benefits of organic food for our own health, the health of our children, and the health of our planet.

Please help ensure that CCOF continues to be a leader in the organic movement. CCOF offers different supporting membership levels and benefit packages for both individuals and businesses. Please select your membership level, and decide how much you would like to contribute. Become a Supporting Member today. For more information visit our website at [www.ccof.org](http://www.ccof.org) or call CCOF toll free at 1-888-423-2263.

**SUPPORTING MEMBERSHIP LEVELS AND BENEFIT PACKAGES**

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<td><strong>$1,250 and over</strong></td>
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<td>All of the above plus a one-time full page space for your advertisement in the Magazine (instead of a 1/4 page ad), CCOF Supporting Member Sign, and Lifetime Supporting Business Certificate</td>
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<td>Receive our Magazine and Bumper Sticker</td>
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**YES, I want to make a difference and would like to become a CCOF Supporting Member!**

Name: ________________________________ ○ Promoting Individual $40 to $74

Business: ________________________________ ○ Promoting Business $75 to $249

Address: ________________________________ ○ Contributing Individual $75 to $249

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Please select your membership level, include a check payable to CCOF, and mail to: CCOF, 1115 Mission St., Santa Cruz, CA 95060-3526.
Ten years ago, Jason McKenney merged his passions for biology and farming with his strong socio-political beliefs—and landed on a 12-acre farm just south of San Francisco. Schooled in Rhode Island on an environmental education farm where he also taught biology, Jason later moved to California to continue farming. Through a friend, he started working on a farm where he learned about local soil types and microclimates, environmental conditions that make California unique as a farming state. He also learned about building relationships with a new and growing sector of organic consumer: small restaurants frequented by customers willing to pay a fair price for delicious local organic produce prepared with a skilled hand.

Today Jason operates Purisima Greens Farm, eight miles south of Half Moon Bay. Like the first farm he worked on in California, Jason caters a portion of his crop production to restaurant orders. Chefs visit the farm, sit down with Jason, and together they build custom salad types, even deciding the style of how the greens should be harvested. Chefs have a lot to choose from on the 5 acres at Purisima Greens: spinach, chards, kales, broccoli, cabbage, roots, cauliflower, beets, turnips, carrots, strawberries, potatoes, artichokes, summer and winter squashes, onions, garlic, leeks, shallots, dry farmed tomatoes, and more.

Like many successful organic farmers, Jason appreciates the strength in crop diversity. Variety may be the spice of life, and the exciting spice in a good restaurant, but Jason is also thinking in practical terms of economy and marketing. “If you maintain a level of diversity, you can have a buffer to withstand almost any market fluctuation.” In addition to restaurants, Purisima Greens offers Community Supported Agriculture (CSA) shares from May to December.

Many small farmers attend several regional farmers’ markets as a way to earn a living. Jason, however, has chosen only one market—the Alemany Farmers’ Market in San Francisco. Here, the discriminating bargain shopper searches the booths, and questions the produce, the price, and the farmer. Unlike the trendy, almost pseudo-yuppie feeling of other Bay Area farmers’ markets, the Alemany Market is frequented by regular neighborhood people looking for good produce at a decent price. “They really confront the issue of organic food cost,” says Jason. But after five years as a regular vendor, and only one of two organic greens vendors out of hundreds, customers have come to recognize Purisima Greens’ produce as cheap, organic food that’s superior. His prices are often under those of local retailers, and the market customers know that. Some of them come to the market before sunrise, flashlights in hand, ready to help Jason and other vendors unload and set up their booths so that they can be the first ones to purchase food and wares for sale. “People come out like locusts.” He laughs. “It’s fun and energizing.” But the Purisima booth is usually sold out of everything by 10 AM. The market wasn’t always like this, explains Jason. He has watched the Alemany Farmers’ Market transform over the years from a mostly Hmong market, with farms based in the Central Valley, to a market of extreme diversity—still with the same Hmong farmers, and now with so many more from around the area. “It’s like...
a superstore in that everything is available, so many vendors and customers. It is the antithesis of monoculture.”

But why enter farming? “Organic farming is biologically oriented environmentalism. It is the best proactive way I know.” Jason thinks of himself as a politically aware person. His motivation for growing organic food is to try to make an equitable living and help create an equitable economy. He says that it is his way of helping to rebuild an economy that serves people in a better fashion. By this, he hopes to stand as an example that one can grow food in an environmental, economical, and labor sustainable way.

“Most other environmental activism is retrospective—trying to curb, halt, stop, minimize, or clean-up environmental damage.” But organic farming is different. It helps create a cleaner world from the outset.

“That’s what organic farming is all about,” says Jason.

New research from the Rodale Institute’s long-running “Farming Systems Trial” provides evidence that organic cropping systems perform better than conventionally managed crops during climate extremes, indicating they will be a “valuable resource in an era of climate variability.” Two organic systems (one legume-based and one manure-based) out-yielded the conventional system in 4 out of 5 years of moderate drought in southeastern Pennsylvania. Though all corn and soybean yields suffered in 1999 (with 5 months of severe drought followed by the wettest September on record in the Northeast), 3 of 4 crop comparisons resulted in significantly better yields in the organic systems compared to the conventional. Water harvest, important for groundwater recharge, was significantly higher over 5 years, with 16% and 25% more water retained for crop use in the organic systems.

Additionally, the world’s longest running study of organic farming (1981-2002) has documented that organic soils actually clean the atmosphere of global warming gases by capturing atmospheric carbon dioxide and converting it into soil material (carbon sequestration). This is the first study to differentiate organic farming techniques from conventional agricultural practices for their ability to serve as carbon “sinks.” While carbon helps stimulate plant growth, scientists estimate carbon dioxide may be responsible for more than 80% of global warming. In the organic systems, soil carbon increased 15% to 28%.

The report appeared in the American Journal of Alternative Agriculture (Vol. 18, No. 3, 2003); for more information, contact co-author Rita Seidel, rita.seidel@rodaleinst.org. A complete analysis of the report can be viewed at www.newfarm.org/depts/NFfield_trials/1103/droughtresearch.shtml
LOTS OF KIDS grow up in an environment that only extends to the boundaries of their two-acre yards. My sister Jennifer Garcia and I, on the other hand, were raised on an organic rice farm where the boundaries of our back yard were as endless as our childhood imaginations. Our pets were not limited to the ordinary cats and dogs of normal households but instead included all sorts of wildlife ranging from tadpoles to turtles and even to ducks. I was a bright-eyed wild forest creature that was ready to explore the great outdoors, running around in rice patties and ponds outfitted in rubber boots and armed only with a small net and my unrestrained imagination. Never in my wildest dreams would I think that all of this would eventually lead to so many more experiences and opportunities that would shape my life forever.

Due to my family’s involvement in and commitment to sustainable agriculture and wildlife-friendly farming I have been granted some phenomenal opportunities. We were invited to participate as a farm family in President Clinton’s National Rural Conference at Iowa State University. President Clinton, Vice-President Gore, and Secretary of Agriculture Dan Glickman were interacting with panels of everyday citizens and responding to their concerns. I learned first hand that issues that affect my local community can be influenced by individuals such as myself through leadership. While attending the conference my father and I went to a reception that was held in a laboratory for new agricultural ideas. The reception was the first time in my life when adults spoke to me as if I were an adult myself. The experience was almost a coming out or a breaking through from adolescence into adulthood for me. University professors and industry leaders were asking me questions about my family’s role in sustainable agriculture and I could speak with them about these topics just as easily as I could speak to my best friend. The Dean of Agriculture Sciences even extended me an informal invitation to attend the University of Iowa upon my graduation from high school.

While still in high school my family and I were also honored guests at The Japan Agricultural Exchange Council (JAEC). We represented the United States at The International Farmers Forum at Akita, Japan. We shared our experiences and ideas on sustainable agriculture and spent a week touring the rice growing regions. While visiting Japan I fell in love with the food and the culture. The buffets of food that were set out for the parties and receptions was so beautifully prepared and displayed that one almost felt guilty about eating the culinary masterpieces. One of the most memorable experiences that I had while in Japan was when my family and I were given the opportunity to visit a Shinto Temple. It was a life altering experience smelling the sweet incense burning while watching as people tie small pieces of paper with prayers on them
to various places about the temple. That moment was my first exposure to the ancient eastern religions and philosophies that I have since been so fascinated with. The Japanese culture had such a great respect for the land and the hard work needed to keep it within one's family. They made me feel proud of my rural background and made me want to work even harder to keep my own family's land so that it may be passed on to the generation that will follow me.

At these conferences and others, such as The National Oceans Conference with former President Clinton and former Vice-President Gore, my horizons opened up beyond my rural existence, and I saw a much broader view of the world. These conferences taught me that I had a voice which could be heard and that if you believed in something strong enough and was willing to work hard and fight for it you can change the world.

Being raised in the country and experiencing wondrous opportunities like these conferences has helped to give me a unique perspective on life. I have grown up with holistic thinking and a greater connection to nature and the world around us. Lots of kids grow up in one dimensional lifestyles, but for me growing up in the country has provided me with certain values, made me a more well-rounded individual, and given me the ability to leap into and understand other cultures. My upbringing on the farm has influenced every part of my life, even the areas of study that I have undertaken while in college. I am a graduating senior this year at the University of San Diego finishing off my major in Business Administration but all the while still staying true to my roots by studying Native American Religion particularly in the area of Shamanism because of their connections to the earth.

While in school I am still astonished at the ignorance of people as to where their food comes from and how it's provided to them. Each time I am asked about where I am from or what my parents do for a living people are always quick to implement the widely used but horribly mistaken stereotype of farming by making a funny comment about seeing me in a rice field dressed in overalls and a straw hat with a sickle in my hand. I am always quick to re-educate these laymen in the truth about what farming has become in the 21st century. After enlightening them on all the technology that my family alone implements on our farms, including the seeding of our rice fields using global positioning systems, I leave them completely awestruck and open mouthed.

Today, I continue my quest to educate by working for my family's business, Living Farms for which I am an equal partner, as the Environmental Education and Public Relations Director. I organize and coordinate tours and educational events on our farms to a broad spectrum of individuals ranging from foreign dignitaries, industry leaders, school teachers, and even grade school children. One of our latest events was a tour at our organic rice operation on the Consumes River Preserve this last summer during the Ministerial Conference and Expo on Agricultural Science and Technology. In conjunction with the Ecological Farming Association and CCOF, attendees from the conference, including two agricultural ministers from Sri Lanka, were given the opportunity to tour our organic farming operation.

While I am enjoying the work that I am doing for Living Farms I am constantly looking towards the ever expanding horizon of my future, wondering where the next chapter of my life will take me. The choices are endless. Right now I am looking into applying for a possible joint degree program that would include law and business. I haven't decided whether I would like to pursue the law degree to the fullest and perhaps become a water attorney or maybe take a different route by becoming a professor and continuing my own education and the education of others. No matter which path or degree I choose to follow, both will be strong tools that will be helpful in order for me to influence the ever changing world around me, and help me to preserve the country that has forever changed my life and become such a part of my soul.
Earthwise Organics’ “Growers’ Blend” Compost is approved for use in organic production. “Growers’ Blend” is a 100% dairy manure compost. To show our commitment to manufacturing quality compost, we took the initiative to have OMRI test our material for use in organic production. We are proud to announce that “Growers’ Blend” is the only compost in California that carries a guaranteed label from the CDFA. “Growers’ Blend” compost is sold and delivered throughout the state of California. We have our own fleet of trucks that enable us to have complete control of deliveries. We have treated over 500,000 acres with our products. We guarantee the quality of each and every load manufactured and delivered.

Earthwise Organics also distributes, gypsum, soil sulfur, limestone, dolomite lime, three blends of compost and California organic fertilizer.

Growers’ Blend Compost

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<th>Nutrient</th>
<th>1.2</th>
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<th>2.5</th>
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NRCS & ORGANIC FARMERS
By Jessica Hamburger, CCOF Foundation

They help farmers pay for controlling erosion, improving irrigation efficiency and creating habitat for beneficial insects and wildlife. They are the staff of the USDA Natural Resource Conservation Service (NRCS), and several CCOF members have already benefited from their grants.

With cost-share money from the NRCS Environmental Quality Incentives Program (EQIP), Greg Massa of CGD Farms was able to laser level his rice field, which resulted in improved water control, reduced weed and pest infestations, and increased production. He also doubled the size of his water recirculating system. This reduced his farm’s reliance on groundwater and cut pumping costs by over 25%. He experimented with growing cover crops to reduce nitrogen needs and repaired a leaky drainage ditch bank in order to keep sediment and pollutants from flowing into the river. He also got a 75% cost-share to do habitat and revegetation work along the edges of his ranch.

“All of these projects were carried out when rice prices were very low, which means they probably would have been infeasible for us to do on our own,” said Massa. “However, the cost-share money and technical assistance provided by NRCS made them all possible, and I think everyone has benefited greatly. Our impact on the river has been reduced, our costs are lower, and our production has increased.”

Of course, not every CCOF farmer who has applied for an NRCS grant has been so lucky. A respondent to a CCOF survey of member participation in conservation programs stated that after ten years of applying to NRCS, she finally got $1,200, and felt that the reward was not worth the effort. However, most of those who responded to the survey and had experience with NRCS programs felt they were worthwhile despite the paperwork and delays.

Organic farmers are natural partners for NRCS because they share many of the same goals for land stewardship, but few NRCS staff members are familiar with organic farming practices. To address this problem, Ann Baier of the National Center for Appropriate Technology (and a CCOF inspector) is developing a training program on organic standards for NRCS staff in California.

Patrick Troy of Agriculture and Land-Based Training Association (ALBA) noted that participation in NRCS cost share programs is easier for farmers who can afford to pay for the cost of improvements and get reimbursed later. “In most cases, it’s not feasible for small farmers with uncertain cash flow, particularly those with limited English skills,” Troy said. For that reason, ALBA is working with NRCS to make its programs more accessible to these types of farmers.

HOW TO GET INVOLVED
1. Apply for a Grant. Info about NRCS programs, including EQIP, is available at www.ca.nrcs.usda.gov/programs. If interested in applying, contact your local USDA Service Center. To find the one near you, go to www.ca.nrcs.usda.gov and click on “Find a Service Center.”

2. Help Shape the Conservation Security Program. Unlike NRCS programs that share the cost of fixing problems on a farm, the NRCS Conservation Security Program (CSP) is an entitlement program for farms that are already operating in a way that conserves resources. This program has the potential to reward organic farmers for the good practices they have been following for years. At press time, the draft rule for the CSP was awaiting approval by the White House Office of Management and Budget. CCOF members are encouraged to comment on the draft rule when it comes out.

Once the rule is finalized, NRCS will request input from the public on the criteria that it will use to evaluate conservation achievements on farms. CCOF Foundation staff will be attending advisory committee meetings to shape the process, and we welcome input from CCOF members.

3. Become a Technical Service Provider. NRCS has a new program that enables private consultants with expertise in areas such as tillage and erosion, pest management, irrigation systems, and nutrient management to serve as technical service providers (TSPs). After signing a contract with NRCS for a cost-share project, a farmer can then request funds to hire a TSP to implement the project. Some experienced organic advisors have already begun serving as TSPs. More information about the TSP registry is at http://techreg.usda.gov.

4. Get on the Board of your Local Resource Conservation District. Resource conservation districts play a role in setting local conservation priorities, which determines how money gets spent.

5. Join the CCOF Conservation E-mail List. If you would like to get periodic updates on the status of NRCS and other conservation programs and how you can get involved, please send an e-mail to CCOFconservation-subscribe@yahoo.groups.com. This list will be moderated by the CCOF Foundation and is not expected to send out more than one message per week. You can remove yourself from the list at any time.

NRCS Grant Application Tips from Greg Massa, CGD Farms

1) Have a good idea of what you want to do, and why. Your goal should be to reduce your environmental impact, and improve your production system.

2) Try to get a big bang out of just a few bucks.

3) Think big—design a whole farm management plan that addresses as many problems as possible.

4) Add wildlife habitat wherever possible. It is a good conservation practice, and it scores lots of points.

5) Talk to NRCS staff throughout the process, and get their input! They know the programs and can help you tweak your proposal to qualify for more dollars.

6) Apply early! Give yourself and NRCS time to think through your proposal and refine it.

7) Use your labor and tractors as your portion of the cost-share. You don’t work for free.
Fire on the Mountain

By Laurie Cohen

Before the fire, dozens of dead or dying pine trees dotted the hillsides along the highway to the mountain resort of Julian in San Diego County: brown, leafless poles among the green canopies of the oaks and cedars. They bore resemblance to matchsticks, and the brown grasses and undergrowth that grew under the trees and up to the roadway were the tinder that was ready to ignite and spread the costliest and most deadly fire in California history.

The oaks and pines, burned in the firestorm that arbitrarily crisscrossed the roads to Julian, usually remain green throughout the year. Now, their color is a gray-brown with a surreal look of life to them...as if they could just blow away. Most of their leaves have remained intact, but it appears as if they are just ghosts. No one is able to tell if they will regenerate. No one knows which trees will live.

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Bailey Creek Farm’s manager Roger Sonnenberg is overwhelmingly busy. The road on which his farm borders was recently renamed Rucker Ridge to honor the fallen firefighter who perished trying to save a neighbor’s residence. The homes and ranches on either side of the 180 acres he oversees were destroyed. The two main dwellings on Bailey Creek were not burned but damages were sustained to an extensive list of farm equipment. The fires swept through the rest of the farm and wrecked havoc and disaster on almost everything.

In the low lying areas of the rolling terrain between the magnificent oaks of Bailey Creek, where natural grasses were tended and encouraged to grow, there is nothing but scorched earth. Tufts of white ashen mounds lay scattered along the blackened grounds. Where a reforestation process was in the works and the young pines and oaks were just starting to create a natural look of a young forest, many of the youthful trees are now brown. Roger continues to irrigate the area and although there are tufts of new grasses where water flows, he is unsure if any of the burned plantings will live.

On the hillsides where acres of almost 40 different kinds of fruit trees are grown, there is a peculiar pattern as to how the fire burned. In the intensively planted areas where the non-stone fruit trees are managed, the fire burned just to the fence, scorching the young trees around the orchard’s perimeter. One or two rows into the orchard where the flames died out from lack of ground fuel or changing winds, the trees are still green, and ready to lose their leaves to the fall cold air. The flames burned into the old growth trees in his lower orchard, leaving some half burned, half still alive.

Two years ago Roger planted intensively along the chain-link metal fencing, only to find that deer could nibble the branches growing through it. He installed another surrounding fence of plastic mesh, which now hung in burned and molten drips outside the metal fence where it once was an effective deterrent to browsing deer.

“This county is meant to burn,” Roger says, as he looks at the area that used to hold his farm equipment, tools and assorted machinery. He misses most his “junk pile” in which he used to have a large assortment of farming supplies, machinery parts, irrigation pieces and PVC. He’s a man of few words now. He can’t even describe the losses the farm has suffered. “It’s too soon to even think about it.”

Burned or damaged beyond repair is an incredible assortment of supplies: electrical lines, orchard pumps, melted irrigation lines, his spray rig, manure spreader, chipper for the compost pile, the mower...the list grows as he thinks...all need replacement. Damage was sustained to one of his coolers, but what was in the newer cooler really bothered him. It was filled with newly harvested fruit.

Forced to evacuate as the fire approached the farm, he rescued the endangered falcons being bred there and then left. The time away from the farm and the power outages cost him a cooler full of fruit ready for market. He lifts the lid of one box of peaches to display the mold that covers everything in the box. “Everything else in here smells like mold, too.” There has been no time to clean it out. The tasks are endless, just to get back to functioning normally. Fruit lies on the ground where it couldn’t be picked in the orchards.

Apples that were on the branches of a tree against the perimeter of the orchard were baked on the limb.

Two weeks after the fire, the sour and acrid smell of soot lingers in the air through-
out the burned groves. Fire-roasted avocados hang from burned trees like Christmas ornaments; a macabre tale of devastation. The once verdant and lush hillsides along Valley Center Road are now blackened dirt, rocks and twisted dead trees.

Laney Villalobos watched the Paradise fire from her home in Pauma Valley. Her farm was untouched by the flames but what she saw shocked her. “Forty to fifty mile-per-hour gusts (of flames) up a hill in ten minutes, top to bottom,” she speaks in amazement. “How lucky are we?” She has plenty to say about the reasons the fires were so uncontrollable. “This is what happens when you don’t manage the forests. Hindsight is 20-20.” She wonders how fires like this will be avoided in the future.

Laney wants to see the Department of Forestry get back to clearing the underbrush. She feels that not using controlled burning or allowing animals to graze is destructive practice. “The deer are gone, now. There’s no sage, no (protected) toad, just total destruction.” She believes there has to be an alternative to granting the environmentalists all their wishes, and ads, “Grazing is beneficial.” She hopes things will change to prevent another occurrence of the devastation like she witnessed.

In the mixed organic and commercial avocado groves Peter Simmons manages, new water lines are already installed to irrigate the groves that burned. Peter unwillingly admits his exhaustion. His family home was spared as the wildfires swept over the hillsides where the 80 acres he manages grow. Thirty of those acres burned, but “by sheer coincidence” only one and a half acres of the organic groves were hit.

The wall of fire, “Fifty yards high and hundreds of yards long, roiled over the groves with black smoke, filled with an orange center of flames.” It came through so quickly that it burned the ground litter, leaves and fruit, and then left in time for him to work smothering hot spots in the groves. He will know the extent of the damages come spring, but for now this year’s crop is a total loss. And the next one or two crops as well, depending on the way the trees recover.

“Nature is a complete gamble…you have to do everything right.” Peter reflects on the last 30 years of managing the groves. He questions the need to continue farming the location and feels tired. His certified avocado grove lost 50 trees, a third of his production. He sees housing tracts being built closer and closer to his family’s ranch.

Peter lives in the groves, and they are his life and livelihood. “It could have been worse.” He sweetly jokes, “God must like organic stuff!”

Avocado grove manager Peter Simmons

Jer-Lyn Farm owners Lynda and Jerry Goldberg don’t have too much trouble estimating their loss. They know every tree on their small farm intimately. They bought their dream home in Escondido in 1999. The accompanying groves were painstakingly restored to life over the next five years. They were evacuated from their home, a beautiful showcase that defines them and their dedication to the land, when the fires were approaching. Until they returned after the flames abated they didn’t know if their home had become a fire casualty, but it stood there “like an oasis” and the daunting task of rebuilding what was lost would begin.

The Goldbergers painstakingly practiced organic methods to restore an avocado grove almost dead when they bought it. They are not daunted by the task of the clean up and restoration. Their love for their land, organics and each other will ensure that the home they first thought didn’t know if their home had become a fire casualty, but it stood there “like an oasis” and the daunting task of rebuilding what was lost would begin.

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A light rain is falling in San Diego County. That’s what we need here. Light, frequent rains to penetrate the ash and regenerate life. Too much water will run off the denuded hillsides eroding the topsoil with it. The right amount of water will bring life back to the hundreds of thousands of acres destroyed.
FOCUS ON FOOD

As American as Winter Squash

By Lisa M. Hamilton

“We have pumpkin at morning, and pumpkin at noon. If it were not for the pumpkin, we would be undone.”

Anonymous poem, c. 1630

In their book Vegetables, Delphine and Diane Hirasuna suggest that the saying should be “As American as pumpkin pie,” not apple. They argue that not only are the fruits native, unlike Asian apples, but they were “almost singularly responsible for keeping the Pilgrims alive during the long harsh winter after their crops failed.”

If anyone tried it, though, the winter squashes would lobby like crazy against it. Partly out of jealousy—hearty winter squash has long played the ugly stepsister to smooth-skinned but culinarily inferior pumpkins. But they would also have a point: most likely it was not pumpkins that sustained the colonists, but sturdy Boston Marrows or Turban squashes. After decades of confusion, the plants deserve some credit.

Now, all hard-shelled squash belong to the Cucurbitae family, along with cucumbers, melon, and summer squash. Cucumbers come from wet central Asia, melons from the accompanying deserts, but all the squash-like things (pumpkins, squashes, gourds) are native to the Americas. And while the majority of North American tribes grew some sort of Cucurbit, that’s where the generalization ends.

When Columbus arrived in 1492, the Cucurbits were isolated from one another. Growing from north of Mexico City through the American Southwest and East was C. pepo: a group of watery fruits that include most summer squashes, gourds, acorns, and what we know as pumpkins. C. moschata, whose most famous member is the Butternut, was the only type to bridge the continents, growing from Arizona to northern South America. (In the 20th century, botanists extracted from C. moschata the distinct group C. mixta, squashes with particularly corky peduncles, such as the Pueblo Indians’ Green-striped Cushaw.) Meanwhile, far down south in northern Argentina and valleys of the Andes grew C. maxima, progenitor to hefty squashes like Hubbard and Delicious.

The North American varieties traveled with humans and by planting themselves, adapting to the climate as they went. For instance, in the northeast C. pepo became summer squash, while in native Mexico it produced the first of our modern pumpkins. But while C. maxima was separated by thousands of miles—its travel north completely reliant on humans—it was most likely the squash the Pilgrims lived on. If so, it would make sense: hailing from a cold, short-summer climate, they would do well in cold, short-summer New England.

At that point all hard-shelled, storable squash were called pumpkins. Early explorers had thought squash were bad versions of muskmelon, the only Cucurbit they knew, so they named them pepon—Greek for “large melon.” This transformed into the French, pompon and then pumpion, which means “cooked by the sun,” or ripe. This would indicate all the hard-shelled squashes (pumpkins, et al.) as distinct from the summer squashes, which are harvested immature. (Their name comes from the Algonquin word askootasquash — “eaten raw.”)

British colonists changed the name to pumpkin, a word more easily pronounced in English. For a long time it meant exactly...
except for the cucumber beetle. As with all
vegetables, the organic matter retains water and so means
less frequent watering. This spurs the vine
to produce a richer, sweeter flavor.

winter squash are best planted on fertile soil high
in some varieties), a search that actually
will actually be Boston Marrow, Delicious, or another C. maxima—just like at the first
Thanksgiving.

GROWING
Winter squash is such an important cere-
monial food throughout the cultures of
North America that it’s hard to believe Europeans hardly eat it. It’s not that the
vegetable couldn’t travel that far (green
beans and potatoes, for instance, are also
native to the Americas); the problem was
that it couldn’t flourish there. Zucchini
and other summer squash grow quickly and
decolors the skin and can cause rot. They
grow for up to 20 weeks and can only ger-
minate in warm soil, and so require a reli-
ably long, hot, dry summer.

Once the right climate is found, winter squash is best planted on fertile soil high
in organic matter. Not only does this sup-
ply the plant’s nutritional needs, the
organic matter retains water and so means
less frequent watering. This spurs the vine
to send down deeper roots (four-feet-long
in some varieties), a search that actually
strengthens the plant and lends the fruit
a richer, sweeter flavor.

When growing in the right place, there’s
not much that harms winter squash—
except for the cucumber beetle. As with all
Cucurbits, every part of the plant—vines,
foliage, flowers, fruit—attracts the little yel-
low insect. They can decimate a young
stand overnight and strip enough skin off a
nearly mature fruit to make it defective.

Non-organic gardeners use relatively few
chemicals on winter squash, but most of
those they do use go to combat the cucum-
ber beetle. The top choice is the pyrethroid
esfenvalerate. It is preferable to chemicals
like endosulfan and carbaryl, which are used
in higher-value crops such as melons. But
pyrethroids do substantial damage, particu-
larly to the beneficial insects that might oth-
erwise control the pests in squash and
neighboring plantings. (Conventional grow-
ers cannot spray until fruit-set, for esfen-
valerate is highly toxic to the honeybees
they rely on for pollination.) Pyrethroids are
highly toxic to fish and amphibians, and are
suspected endocrine disrupters (think: fish
with multiple sex organs or organs from
multiple sexes). Finally, they contain chlo-
rine, which helps them stick around in the
soil for a long time.

All the pyrethroids are actually perverse
mimics of the natural insecticide within
the chrysanthemum plant, pyrethrum.

Organic growers can use this on the bee-
tles, but again, by killing insects bad and
good, it subtracts from the total ecosystem
that makes an organic farm work in the
first place. Phil Foster of Pinnacle Brand
in San Juan Bautista instead goes strictly
for physical combat. When he knows the

<table>
<thead>
<tr>
<th>Winter squash varieties</th>
<th>Characteristics</th>
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<tr>
<td>Acorn</td>
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<tr>
<td>Cinderella</td>
<td>“From New Zealand. This one has beautiful, bright orange flesh and a taste that’s very melon/cucumbery. Nice and heavy, a good stuffer.”</td>
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<td>Cream of the Crop</td>
<td>“Light skin, very pale flesh. Actually, kind of bland, but a nice table decoration.”</td>
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<tr>
<td>Delicata</td>
<td>“Wonderful sweetness. But then, you see it everywhere. I’d try one that’s a little more adventurous.”</td>
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<tr>
<td>Kabocha</td>
<td>A Japanese variety with a bright orange flesh and super nutty flavor. The Red Cup is the American version. Some say Red Cup is creamier, but I think the only difference is shape: Kabocha is round like a pumpkin, Red Cup square at the edges.</td>
</tr>
<tr>
<td>Red Kuri</td>
<td>“It looks like a primeval pumpkin. The taste is similar to Kabocha, but starchier. Lately I’ve been mixing the two for a Red Kuri-Kabocha-ginger-Serrano pepper soup.”</td>
</tr>
<tr>
<td>Spaghetti</td>
<td>“Big, round, and beige—like the love child of a butternut and a pumpkin. Good all-purpose squash for pies and soups and such, a lot like a Butternut. Restaurants really like this variety, probably because the big, heavy squash give so much meat.”</td>
</tr>
<tr>
<td>Triple Treat</td>
<td>“It’s technically a squash, but it looks like a pumpkin. It even has big seeds like a pumpkin; that’s why it’s called ‘Triple Treat’: because you can eat the thin skin, the meaty flesh, and the roasted seeds.”</td>
</tr>
<tr>
<td>Sweet Dumpling</td>
<td>“The kids’ favorite—this and Delicata—because you just slice it in half, bake it, and eat it right from the shell.”</td>
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</table>

Shoppers might be attracted to the winter squash display by its variety, but they
usually end up buying Butternut. To be fair, it is a reliable, all-purpose base for
soys, stuffing and pies. But considering how many things a squash can be—
nutty, melony, slippery, creamy—it’s worth taking a trip off the beaten butternut path. Here are some recommendations from several fine purveyors of winter squash from the San Rafael Civic Center Farmers’ Market.

More to Life than Butternut
bugs will be bad, he covers the emerging plants in a thin, Tyvek-looking row cover that lets in sun and water, but not bugs. When the plants are big enough, he removes the top and cleans up the weeds that have also enjoyed the protection.

Because the farm where he grows winter squash is surrounded by pasture, beetles have plenty of breeding ground and therefore can be unrelenting. If they show a significant presence early on, he sprays vines with a naturally occurring mineral clay that sticks to the insects’ bodies and keeps them from munching. Still, they will hide out in field borders and migrate in when conditions are better. So when it’s really bad, Foster will reverse the direction of his leaf-blower and literally vacuum up the bugs from their place alongside the squash.

All this is expensive, both in materials and labor, but for Foster it’s worth it. Because winter squash stores well, he can sell it well into winter. In that slow season, the crop offers vital sales and the work that helps him retain a crew of workers year-round. But there’s a Catch-22: Squash lasts only so long after it’s harvested, but is more valuable the later you sell it. The earliest plantings see fewer insects, but their fruit comes out of the field so early that it isn’t very valuable. The later plantings get a higher price, sold in January rather than October, but only if they make it—they are seedlings in the height of summer, when bugs have multiplied; and they are still in the field after most plants are gone, making them the sole food source for hungry beetles. So what does Foster do? A little of both. “If we just had one crop that we depended on we’d have a sad face if we lost some of it,” he says. “Not relying on one thing allows us to be a little less frantic, a little more philosophical.”
Parents, educators, and school children in Santa Cruz County have a new educational resource to celebrate! A collaborative effort between Life Lab Science Program, New Leaf Community Markets, The Center for Agroecology and Sustainable Food Systems (CASFS), and Community Alliance with Family Farmers (CAFF) has developed a program called “Field-to-Market-to-You.”

The field trip program is split into two age groups: one for students in the fourth through sixth grade; and a new program for second and third grade students which meets many state education standards for the social sciences. Each program includes a two-hour in-class session, and a two-hour grocery store exploration at New Leaf Community Markets. The second and third grade courses will focus on the rich agricultural history of Santa Cruz County, an overview of significant historical figures, and a scavenger hunt. The fourth through sixth grade program explores the life cycle of food production, benefits of local and non-local foods, nutrition, conservation, and consumer consciousness.

The all encompassing “TV culture” and mass media marketing campaigns are poisoning our culture. The result is that consumers have become misinformed about and disconnected from the land and the people that grow their food. If we can educate our children and provide them with the tools necessary to understand the connection between the health of the soil and the health of the people, they become the cure— informed business leaders, policymakers, and consumers of tomorrow. Steve Edwards, a teacher at The Aptos Academy, whose class will be participating in the program, remarked, “Young people need to learn how to make good choices about the food they eat at school and at home. The “Field-to-Market-to-You” program will make students aware of the kinds of information they can look at to help them make decisions. This is a good first step in helping students realize they have to take responsibility for their health and the health of the planet.”

Giving students hands on experience outside the classroom is paramount to understanding the concepts taught in the classroom.

The “Field-to-Market-to-You” program is part of a Central Coast community-based effort to integrate nutrition and food systems education with school gardens, school cafeterias, local farms, and community markets. “Field-to-Market-to-You” is run by Katie Davis, an experienced New Leaf Community Markets Community Educator and former Life Lab intern. Katie brings a deep concern for the environment and a love of teaching children to each session she leads. “I believe that we all have the power to create positive change in our community and society. I feel that educating children and empowering them to form opinions and make their own decisions is the most profound step I can take toward positive change,” said Davis. “Field-to-Market-to-You” is offered throughout the school year.

Teachers, students and parents who would like to register or would like more information about this and other programs offered by the Life Lab may visit www.lifelab.org or call 831-459-2001.

“The best and most beautiful things in the world cannot be seen or even touched. They must be felt with the heart.”
- Helen Keller
When the average gardener sees a garden or landscape pest, they try to kill it, typically with toxic pesticides. All too often even organic growers’ first action against unwanted horticultural intruders are organically acceptable pesticides. These control strategies are only temporary solutions. Pests are only symptoms of the real problem. Treating only the pests does not eliminate conditions that favor pest attack. The result is that the pest typically returns, requiring frequent and repetitive treatments.

Take a new approach to your pest management strategies for next season to help you successfully reduce or even eliminate pest damage and the need to use toxic pesticides. In order to manage a pest properly, you must first properly identify it (something neglected by most gardeners). Then you must ask yourself: what conditions favor pest attack? The answers to this question will lead you to the appropriate strategies to manage the pest without pesticides.

Following the step by step process below will help you determine the real cause of your pest problem. First, determine if a real problem exists and define it. Look at the plant in question and properly identify it. Second, learn what a normal healthy plant of that species looks like at that time of year. Natural growth characteristics may mimic disorders. Liquidamber trees have wing like growths on the stems, which is perfectly normal. Some broadleaf evergreen species (e.g., cork oak) shed leaves in early spring before new growth begins. These things are normal for these plants and should not be improperly identified as pest related. Individual plant varieties are (for the most part) subject to specific insects and diseases.

Know the common pests in your area and which plants they typically attack. When you are unable to identify a plant or are unfamiliar with common pests for specific plants in your area, your local cooperative extension office should be able to identify the plant (take in a sample) and provide a list of common pests. You can also provide them a sample of the pest problem and they will identify that for you. Next, evaluate the entire plant, its surroundings, and how you have managed the plant. Remember pests are only a symptom of the real, less obvious problem. Determine if obvious factors (e.g., excessive or deficient water or light, excessive fertilization) are the real cause. This could stress the plant and make it susceptible to pests, resulting in problematic symptoms. Determine where the damage began. Symptoms and their location on the plant may help you ascertain the actual cause of the problem.

It is important to realize that not all plant problems are caused by pests, and to distinguish between problems resulting from biotic (living) factors and abiotic (non-living) factors. There are general characteristics for each that can help you evaluate which might be the cause of your plant problem. General characteristics of abiotic factors include similar symptoms of damage on several different plant species. The symptoms often appear on all leaves of a certain age. Physical factors can include excessive or deficient irrigation (or rain), temperature extremes and drying winds. Taking soil cores and checking weather records can help to confirm these disorders. Mechanical factors are often the result of poor maintenance or construction practices.

They can include soil grade changes, soil compaction, root cutting, lawnmower and string trimmer injury and girdling or kinked roots. Chemical disorders which include nutrient deficiencies, excessive soil salts, and phytotoxic pesticides (e.g., herbicide, insecticide, plant growth regulator damage) may require soil and tissue analysis to confirm their influence. Attempting to cure these abiotic plant problems with applications of pesticides (which is commonly done) will only pollute the environment with toxins and do nothing to help your plants. Iron chlorosis (yellowing leaves due to a deficiency of iron in the plant) may be due to overwatering or a high soil pH (above 6.8), rather than an actual iron deficiency in the soil. Adding more iron to the soil if the pH is too high will not fix the problem. Only when the soil pH is lowered, making the iron in the soil available, will plants get the nutrition they need.

Borers are typically only symptoms of the real problem. Healthy plants can usually resist borer attack. Insufficient soil moisture stresses the plants, making them susceptible to borer attack and damage. Biotic factors occur on one or only a few plant species (e.g., fire blight only affects members of the rose family). Damage typically progresses with time. Indicators (e.g., cast insect skins, fruiting bodies) can often be seen with biotic factors. And just because you find a biotic factor attacking your plant, does not mean it is the cause of the problem. It likely is only a symptom. Aphids can be an indication of excessive nitrogen fertilization. Switching to slow release organic sources of nitrogen can help solve the problem over the long term. Just treating the aphids while continuing with poor fertilizer practices will encourage the aphids to return. Fungal diseases can affect all plant parts from roots to leaves. They can be displayed as leaf spots, powdery mildew and root or crown rot. Bacterial diseases affect leaves, stems, branches and trunks (e.g., fireblight). Virus diseases are uncommon for landscape plants but can
occur (e.g., rose mosaic). Parasitic plants (e.g., broadleaved mistletoe) are typically easy to see and identify. Diseases require the proper environmental conditions to become a problem. Identify the disease, learn its environmental needs and make necessary management changes to eliminate those conditions (e.g., change irrigation practices, thin out trees over thin lawn area to allow more light) and cure the disease without pesticides. Most insect pest damage is not fatal to plants. Specific pests will disfigure plants in characteristic ways. As feeding continues, the plant’s appearance goes through predictable changes. Often these changes are observed before the insects, which may be very small or camouflaged.

Don’t be fooled into thinking that symptoms that can be observed (e.g., insect pests) are the problem that needs to be treated. Remember, healthy plants can usually resist pest attack. Identify the pest, but don’t stop your investigation there. Learn what conditions favor pest development. Evaluate your management practices and environmental conditions and make changes to reduce or eliminate those that favor pest attack. Your pest problems will often be solved without resorting to pesticide applications.

Reprinted by permission from Biological Urban Gardening Services (BUGS), an international membership organization (established in 1987) devoted to reducing our reliance on potentially toxic agricultural chemicals in our highly populated urban landscape environments. Members receive the latest environmentally sound urban horticultural information through the newsletter, BUGS Flyer —The Voice of Ecological Horticulture and a catalog of educational brochures. BUGS also provides soil analysis with extensive organic recommendations. For more information, contact BUGS at P.O. Box 76, Citrus Heights, CA 95611, or visit BUGS on the web: www.organiclandscape.com

STATE ORGANIC PROGRAM

COPAC MEETING
NOVEMBER 4, 2003
By Sean Feder

The California Organic Products Advisory Committee (COPAC) is an industry advisory body set up under the California Organic Products Act of 2003. COPAC meets quarterly with CDFA and DHS staff. Ray Green is the supervisor of the California Organic Program. Certifiers do not have a seat on the committee, however several CCOF certified producers are current representatives. CCOF staff attend COPAC meetings when possible.

The November 4, 2003 meeting was held in Sacramento. Ray Green reported that they are still waiting for the USDA to act on California’s application to become an official NOP State Organic Program. This will grant CDFA and DHS the authority for enforcement and administration of appeals under the NOP.

The Federal Organic Certification Cost Share program is continuing through the end of September 2004. Certified operations may apply for 75% of their certification costs to be reimbursed (up to $500 maximum). A surprising number of certified organic operations did not apply for the one-time reimbursement. Newly certified operations or those that did not apply this past year should apply to CDFA to receive their funding. The cost share application form is available at www.cdfa.ca.gov/is/fveqc/organic.htm, county agriculture offices, CCOF, or by contacting Ray Green’s office at (916) 445-2180.

Former COPAC representative Bryce Lundberg addressed the committee regarding genetically engineered (GE) crops in California. He reiterated a message he has put forth for the past two years—that COPAC should take a position to protect organic growers from risks associated with the introduction of GE crops. The COPAC/CDFA response has been to request a survey of organic registrants to determine if there is a sufficient consensus on this issue to warrant taking a position. When Lundberg came up with a survey, it was seen by some committee members as non-scientific. Lundberg expressed some frustration with the California Organic Program’s stance. He felt that it should be clear to representatives of organic growers that it is a major issue without having to send out a survey, and that there is already sufficient published evidence that GE has negative market implications. He would like to see CCOF consider sending CDFA a petition from its members to help demonstrate that this is an important issue. At the recent meeting, Gay Timmons, Chair, revitalized this concern and has taken it on as a focus issue.
The last two decades of the 20th Century brought widespread recognition and respect to CCOF and organic farming, produce, and food products. The popular California organization had helped the state and national organic communities overcome many obstacles in the 80s and 90s.

New threats to California organic agriculture appeared in 2000, although this time not in the form of pro-agrichemical government rules and smear campaigns as seen in the late 90s. This first of many threats was natural. The Glassy-winged Sharpshooter (GWSS), seen first in California in the late 1800s and again in the 1940s, was reintroduced to the state in the late 1980s. This type of sharpshooter transmits the bacterium xylella fastidiosa when it feeds on favored plants, such as almonds, grapes, and citrus. The stems harden over time, causing Pierce’s Disease, which usually kills susceptible crops within two years. As a menacing threat to the economic powerhouse that is the California wine industry, local and statewide task forces were created to more effectively deal with the problem. Fearing that organic growers would be left out of any abatement plans, the organic voice made itself heard. In response, CCOF grower Steven Pavich was included on the statewide task force charged with finding solutions to the GWSS threat. The task force recommended organically sensitive treatments, detailed tracking plans, finding a scientific cure for Pierce’s Disease, continuous inspections, and a color-coded tagging system for plants leaving infected areas. As a result of these efforts, GWSS sightings are becoming fewer and fewer each year. The sharpshooter still exists in California, and likely will for years to come, but the threat it poses to conventional and organic agriculture has been significantly lessened, thanks to all affected parties working together. This cooperative response has been a template for subsequent statewide and regional pest control plans, such as those to combat Exotic Newcastle Disease in poultry and the Mexican Fruit Fly threat, both during 2002/03, and the recently arrived West Nile Virus. Such cooperation illustrates how organic has grown from a marginal practice to a respected agricultural system equally welcome at the negotiating table.

In 2000, CCOF was seated at another negotiating table—this one with the federal government regarding the conflict of interest clause in the National Organic Program (NOP) final rule. For CCOF members who held member-control of the organization as a fundamental strength, negotiations with the USDA would not produce fruit to save the long-held structure of CCOF’s governance. The USDA determined that certifying organizations, now quasi “agents” of the USDA issuing a government license, must be free from conflict of interest to assure consumers that products are truly organic according to the NOP rule. This meant that CCOF certified members could no longer oversee the same certification program that certifies their businesses. Under the leadership of Board Chairman Philip LaRocca, the organization was forced to restructure or face non-accreditation by the USDA and the failure of a nearly 30-year old California institution. Several proposals to satisfy USDA were offered. A Certification Division Committee was created, made up of non-certified parties to supervise the certification program, but the connection to the member-directed board was still too strong; USDA did not see the separation as sufficient, and ordered CCOF to try again. Various models were visited and revisited. Success was finally achieved in the formation of a Limited Liability Corporation (LLC), separate from the member-directed CCOF Inc, the politically active trade association. Non-certified members of the organic community now direct CCOF Certification Services LLC, while CCOF Inc. still retains control of the name, seal, and budget. CCOF also created a tax-deductible non-profit organization, CCOF Foundation, designed to receive grants that would help educate the

Timeline of the Birth of the National Organic Program

- 1973: CCOF founded. Activist growers, seeking to promote and define organic production practices, form a chapter system that later becomes CCOF as it is known today.
- 1985: Organic Food Production Association of North America incorporates. OFPANA later changes its name to the Organic Trade Association (OTA).
- 1988: CCOF holds the first inspector training and recognizes that inspectors need to be qualified, trained, and paid.
- 1989: Natural Resources Defense Council (NRDC) releases “Intolerable Risk: Pesticides in our Children’s Food.” Aired on 60 Minutes, this becomes known as the “Alar scare.” This media event propels organic production into the mainstream market and begins a growth trend that has averaged 20% each year to date.
Another threat to agriculture appeared early in the new millennium—one that could not be resolved by those it most affected. The California energy crisis of 2001 impacted agriculture more than most urban dwellers realized. While urban home electricity costs rose, and they were rightly upset by it, California farmers, processors, and retailers were hit much harder. Some CCOF certified businesses were forced to scale back production greatly that year due to the high cost of gas and electricity, while still trying to earn enough to pay those bills and keep food on the table. At least one CCOF certified processor notified the CCOF Home Office in Santa Cruz that it was closing its business as a direct result of the high energy costs.

Another told of many conventional peers in his region who were locked into contracts but could not meet obligations due to high costs. The chain reaction of financial woes from business to business led to a sharp increase in bankruptcies in the agricultural sector in California. There was little that CCOF could do in the greater San Francisco Bay Area—New Leaf Markets in Felton and Boulder Creek, in 2000—and the first certified organic brew pub in the United States—Ukiah Brewing Company, in 2001. Increased recognition of the CCOF name at the state and national level was important for the organization, but it was also an indication of the worldwide growing popularity of organics. In recent years, research from multiple countries has emerged to show that organic food is more nutritious in content, and that organic food production is in fact healthier for the environment. Organic sales have increased on average 20% each year since the early 90s, indicating the strong and steady growth of consumer consciousness of how our food is produced.

Responding to this growth of and change within the organic trade, CCOF reached further into the consumer sector to help educate the general public during this confusing time. CCOF joined the internet age by merging its processor members, and renamed the California Organic Directory, in 2001. Increased recognition of the CCOF name at the state and national level was important for the organization, but it was also an indication of the worldwide growing popularity of organics. In recent years, research from multiple countries has emerged to show that organic food is more nutritious in content, and that organic food production is in fact healthier for the environment. Organic sales have increased on average 20% each year since the early 90s, indicating the strong and steady growth of consumer consciousness of how our food is produced.

Responding to this growth of and change within the organic trade, CCOF reached further into the consumer sector to help educate the general public during this confusing time. CCOF joined the internet age by merging its website and the annual Membership Directory to create the Find-A-Farmer Search Engine. Later expanded to include all farmer and processor members, and renamed the Organic Directory, this marketing tool allows anyone with access to the World Wide Web to search for CCOF members and view their crops, products, services, sales methods, and contact information. The Newsletter of CCOF also expanded its outreach to more consumers, thanks in large part to Michael Steinberg of Flying Frog Farm. After Michael hosted a one-week product promotion at Whole Foods Markets in Sebastopol, customers returned to request more copies of the Newsletter. Whole Foods contacted CCOF and made plans to purchase the quarterly publication for their customers on a regular basis. Because of this great customer response, the renamed CCOF Magazine is now available at all 15 Whole Foods Markets in Northern California.

With the new growth in organic came those who sought to ride the coattails of its popularity, and capitalize on the word “organic”. To ensure the further protection of the word, the process, and the fundamental beliefs, committed members of the California organic community decided it was time to update the California Organic Foods Act (COFA), to protect organic everywhere in the state. With the public’s increased interest in organic products, companies were creating “organic” body care and other non-food products not covered by the COFA ’90. Organic proponents, most notably Gay Timmons, worked tirelessly with legislators to rewrite the law. Large multinational conglomerates were also interested in helping—to ensure the defeat of any limits on the use of the word “organic” on non-food products. Their powerful lobbying, at this time, did

1989
Center for Science in the Public Interest (CSPI) hosts the first conference of its kind to bring organic groups together with consumer groups from throughout the country. Coming right after the Alar scare, this conference enables CCOF to join with other groups to make organics known on a national level.

Organic Food Alliance and Organic Farmers Association Council forms. Together with OFPANA, they begin to lobby for federal regulation to define and protect organic production practices.

CCOF starts pioneering review of Brand Name Products. Oregon Tilth joins in this project two years later.

1990
US Senator Patrick Leahy submits a bill to define and regulate organic production practices as part of the Farm Bill. The bill is not approved by the Senate Agricultural Committee as part of the Farm Bill.

Organic Foods Production Act, as originally proposed by Senator Leahy, passes as a separate piece of legislation not attached to the Farm Bill. This is considered an incredible success in light of the Senate Ag Committee’s earlier refusal of the bill.

The revised California Organic Foods Act of 1990 is passed.
not prevail. In September 2002, Governor Gray Davis signed into law the California Organic Products Act of 2003. Beginning January 1, 2003, all products sold in California with less than 70% organic ingredients are not allowed to use the word “organic” on the front label. However, later in 2003, the State Assembly repealed the non-food provision of the COPA ’03. The State Senate will take up the matter in early 2004 (see page 28).

Organic farming had received official sanctioning in 1980 when the federal government finally acknowledged the existence of this “alternative” (nay! traditional!) farming system. It received another boost with the 2002 Federal Farm Bill when organic businesses received a share of the wealth. With mandatory certification for all organic businesses in the U.S. with more than $5,000 in annual sales, coupled with the rising costs of certification, the federal government created a cost-sharing program to help offset the cost of certification. Previously, Farm Bill subsidies have gone only to conventional agriculture, and even then only to the largest of the large. Organic farmers and politically conscious consumers have long felt that government subsidies should go to those who farm the Earth in balance with nature and leave the least impact on the environment. Organic consciousness is growing, and eventually politics will too.

In early 2003, CCOF elected its first woman to the position of Board Chairperson—Vanessa Bogenholm of VB Farms in Watsonville. Under her leadership, CCOF completed the revisions to the organization’s bylaws, thus driving the last nail into the new framework of the organization as required by the NOP. But as soon as that task was complete, CCOF was presented with another major challenge to organic farming—a complete ban on hand weeding in California agriculture. Pitting previous allies against each other, and finding new allies that were former opponents, CCOF worked to educate legislators and CalOSHA that hand weeding is necessary with certain kinds of crops in organic agriculture. The efforts of CCOF and its allies forced the bill to be pulled for amending. When it returned to the floor without consideration to organic farming, the Hand Weeding Bill (SB 534) was soundly defeated. CCOF, Community Alliance with Family Farmers (CAFF), the California Farm Bureau, Western Growers, seed companies, nursery companies and the wine industry all banded together to defeat this bill. In the end, it was the organic issue, as the consistent main topic in the final committee meetings, that really brought over the votes needed to defeat this bill.

CCOF’s presence was also felt in Sacramento in June 2003, when the USDA and Secretary of Agriculture Ann Veneman, along with the U.S. Agency for International Development (USAID) and the U.S. Department of State, hosted the three-day International Ministerial Conference & Expo on Agricultural Science and Technology. A coalition of organic farmers, businesses, and farming organizations gathered together the $8,000 needed to rent booth space, set up a small organic food stand inside the Expo, and offered organic food and information to over 100 ministers from third-world countries. Major agricultural biotechnology and food technology companies, including BASF, Cargill Dow, CocaCola, Dow AgroSciences, Kraft, Monsanto, and SureBeam Corporation, were also in attendance to convince the ministers of the benefits of the scientific and chemical domination of the Earth in growing food. Outside, the event was attended by nearly 4,000 protesters opposed to the corporate patenting and control of food from seed to shelf.

CCOF prepared the summer issue of CCOF Magazine specifically for this event to educate ministers and the general public about the already-proven dangers of agricultural biotechnology, the numerous questions remaining about genetically engineered (GE) crops and new food technologies, and the irresponsible overuse of toxic pesticides. Serving the only fresh, local food available inside the conference (surprising at a conference on agriculture and technology!), the organic booth reminded the ministers that agriculture is about the production of nutritious food grown with knowledge of and respect for nature. The organic booth had a strong impact on ministers and media, garnering a variety of stories from the local SacBee to the National Journal’s Congress Daily in Washington, DC.

While the Ag conference was taking place, the California State Senate Select Committee on International Trade held a hearing on the

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Vanessa Bogenholm of VB Farms

Timeline of the Birth of the National Organic Program

- **1992**: National Organic Standards Board (NOSB) members are announced at this year’s EcoFarm Conference. Most are not from the slate of candidates proposed by the organic community.
- **1993**: NOSB begins work of writing standards and compiling the National List. CCOF participates heavily by educating new NOSB members on the issues, using CCOF standards as a starting point, and sending the initial list of materials to be reviewed through OTA to the NOSB.
- **1995**: NOSB submits recommendations to the USDA for national regulations.
- **1997**: First proposed NOP Regulation appears in the Federal Register. The organic community is shocked to find genetic engineering, irradiation, and sewage sludge (the “big three”) written into the standards. The public rejects the proposed regulations with 280,000 comments, setting a record for the most comments received to any USDA proposed regulation. USDA is “awestruck at the size and fury of the protest,” and announces the withdrawal of the “big three” from the standards.

Organic Materials Review Institute (OMRI) is created out of CCOF/Oregon Tilth.
health, environmental and economic impacts of GE crops and products in California. CCOF President Brian Leahy and CCOF rice grower Bryce Lundberg both gave testimony to the shocked committee members, who were appalled at learning how prevalent GE products are in the American food supply, and how little Americans know about what they are eating.

CCOF has long been an active member in the statewide focus on genetic engineering, and has lent its name and resources to other organizations in collaborative efforts to inform consumers, farmers, and processors about agricultural biotechnology. The greatest impact on agbiotech in California came from a coalition of sustainable agriculture organizations, of which CCOF was a founding member in the hands of staff member Brian Sharpe. Formed in 2002, Californians for a GE-Free Agriculture (CGFA) includes CCOF friends Community Alliance with Family Farmers, Ecological Farming Association, Organic Consumers Association, Occidental Arts & Ecology Center, The Center for Food and Agriculture Policy, and how little Americans know about GE products are in the American food supply, and how little Americans know about what they are eating.

At present, California is nearly free of GE crops, with the major exception of GE cotton grown in the Central Valley. In the next few years, however, the agbiotech industry hopes to commercialize a new generation of GE crops in the state, including: Bayer’s herbicide-tolerant rice; Ventria Bioscience’s pharmaceutical rice (with human genes); and, Monsanto’s herbicide-tolerant strawberries, lettuce and rice. Bayer’s GE rice was recently approved by the federal government and could soon be grown in California. The CGFA coalition has recognized the immediate and future threat to California agriculture.

that is the new untested and virtually unregulated agricultural biotechnology industry. To try to prevent these crops from forever taking root in California, considering gene pollution, the coalition seeks to educate farmers as the first line of defense. The coalition is largely successful in that it gives information to farmers presented by their peers and other knowledgeable industry leaders. Farmers learn of the promises and the realities of GE crops, and the effects on their farm economy and the environment. Conventional farmers are responding positively to the coalition’s message, but for CCOF, CGFA, and all of California agriculture, this is just the beginning.

HARVEST
In February 2004, CCOF will celebrate its 30th Anniversary in Monterey on the Central Coast of California—the same area that witnessed CCOF’s birth in 1973, and that nurtured it back to health after its near-collapse two years later. It is astounding at times to reflect on the long strange trip this organization has had over these last 30 years, from its creation as a fringe movement to a respected worldwide player in the organic movement. Started with the commitment of 90 organic farmers and Rodale’s Organic Gardening & Farming magazine, CCOF survived decentralization with a handful of farmers who were dedicated to an organization in which they saw great social and political potential. With their hard work, CCOF quickly grew to help create the first organic law in the state of California. In the 1980s, news of human illness due to toxic synthetic pesticides helped propel organic even further into the public eye. In response, with State Assembly member Sam Farr’s help, CCOF helped write the second organic law in California, the most comprehensive in the nation at the time. The 1990s saw a steady surge in organic sales, further solidifying it as a healthy and natural alternative to chemical agriculture and overly processed foods. The National Organic Program appeared with agribusiness special interests included in the law—and the organic community found its collective voice, forcing an awestruck federal government to revise the law. Such a move worried the agrichemical industry, and a PR campaign was launched against organic—with little success. The final National Organic Program was released in 2000 and implemented in 2002, with a revised California organic law appearing in the following year. Forced to reorganize with the desire to keep the long-held member control, CCOF was successful in satisfying the new federal law and maintaining its historical structure—in the end, assuring organic supporters in California, the nation, and worldwide of its continued commitment to and protection of this traditional farming system.

Three organizations from one—CCOF Inc, CCOF Certification Services LLC, and CCOF Foundation—started in 1973 to conduct organic certification with only 13 standard points, and after 30 years still going strong in the face of challenges, modifications, and government regulation. It is the dedication of the people that make up CCOF and the organic community as a whole that have made this possible. Certified and Supporting Members and staff, and thousands more like them, have helped CCOF grow to become the politically and publicly respected organic organization that it is today.

Thanks to Brandon Lee, Tammy Hansen, Ron Nielsen, and Sy Weisman for their previous writings on the history of CCOF.

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<td>Third and final version of the Federal Rule is published in the Federal Register.</td>
<td>NOP rule becomes law, starting an 18-month implementation period.</td>
<td>CCOF applies for accreditation with the USDA. CCOF is accredited in the first round of accredited organic certifiers on April 29, 2002.</td>
<td>USDA Organic Seal is released for use. Implementation period ends. All organic businesses in the United States earning over $5000 in annual organic sales (excluding retailers) must now be certified by law.</td>
<td>CCOF remains committed to serving organic farmers, handlers, and consumers.</td>
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CA SENATE TO VOTE ON BEAUTY REPEAL
The State Senate will vote in 2004 on a bill to repeal the personal care products provisions of the California Organic Products Act of 2003. The State Assembly has already approved the measure, AB 1335. Eliminating this portion of the state law would re-open the door to misleading claims on personal care products. The state law sets a minimum of 70% organic ingredients for making organic claims. The National Organic Program does not regulate organic claims on personal care products. Please contact state senators and urge them to vote against the repeal (www.senate.ca.gov).

OTA URGES PRECAUTIONARY APPROACH
Hard on the heels of the FDA preliminary announcement that meat from cloned animals would be allowed into the food supply, the Organic Trade Association issued a statement criticizing the FDA for taking a short-term approach. OTA’s position is that meat from a cloned animal could not be labeled “organic” even if it came from an organically raised cell donor.

DIFFERENCE BETWEEN ORGANIC AND CONVENTIONAL VEGETABLES PROVED
A Danish study concludes that organic vegetables have a higher concentration of flavonoids—natural antioxidants. The scientists behind the study do not exactly know why this difference appears. One theory is that organic producers use plant varieties that are more resistant to insects and diseases, and another possibility is that organic vegetables are not sprayed with highly toxic chemicals. Until now, flavonoid studies have mainly concentrated on the effect of single flavonoids given in large doses. However, this particular study focuses on the excretion of a number of flavonoids at a realistic dietary intake and derived from a variety of flavonoid sources.

ORGANIC COFFEE SALES SURGE
While the regular coffee market has remained flat and specialty coffees are growing at only 1–2% each year, the organic coffee market grew last year by 10.5% overall. Many companies report sales increases up to 25%. Reaching out to new markets (churches, zoos, websites) has helped sales dramatically.

INSPECTION STATIONS CLOSE
Easier access for pests and diseases to California’s $27 billion ag economy may be the unintended consequence of the state’s budget crisis. Already 11 of the 16 inspection stations astride the state’s borders have been ordered shut by the end of 2003. The five remaining could be closed in 2004, according to a CDFA spokesperson.

STATE’S PESTICIDE USAGE CLIMBS
Following four years of declining pesticide usage in California, the Dept. of Pesticide Regulation reports a jump in usage in 2002 in its new Pesticide Use Report. The report documents a 14% increase from 151 million pounds applied in 2001 to 172 million in 2002. This is still lower than any year in the 1990s. The farming industry used 156.5 million pounds of the total, up 19 million pounds from the year before. While Tulare County shows a slight decline, other San Joaquin Valley counties report increases, ranging from 7% in Merced County to 26% in San Joaquin County. Fresno, Kings and Madera counties were in the 14%–16% range. Kern County was unable to report accurate figures in 2001 so comparisons are not possible. Coastal counties generally were about even with the year before but Monterey County increased by 7.5% and San Diego by 10%. Imperial County pesticide usage declined.

PESTICIDE DRIFT SICKENS 136 IN KERN CO
Cloropicrin applied in an onion field in Lamont is blamed for drifting into a residential area sickening 136 people and hospitalizing four during the weekend of October 4. The product, Metapicrin, which is 100% chloropicrin, was being applied by Western Farm Service on a 40-acre field. Kern County ag officials said the drift was unusually strong. Kern and state DPR officials are investigating. In July 2002 a drift of metam-sodium in Arvin hospitalized 20, with 250 people reporting illness.

UC STUDY: EASEMENTS SHIELD FARMS
Agricultural easement programs are slowing the rate of farmland conversion in suburban and semi-rural parts of major metropolitan areas—counties with populations greater than 100,000 that have been experiencing rapid population growth. The 46 programs studied have spent a total of $1.8 billion to protect 887,000 acres on 5,800 farms. Six California programs are included in the study, A National View of Agricultural Easement Programs, which was conducted by
American Farmland Trust and the University of California’s Agricultural Issues Center, in collaboration with Farm Foundation.

**BUSH ADMINISTRATION CHANGES PESTICIDE LAWSUITS**

A new interpretation of federal law at EPA will limit farmers’ ability to sue pesticide manufacturers when their products do not perform as promised. This interpretation is diametrically opposed to the previous administration’s position on the subject. In effect, the new ruling says that growers cannot use state laws to sue a manufacturer when the product fails to do what the federally approved label says it will do.

**EMORY U. STUDY WARNS OF PESTICIDES**

A new study conducted by Emory U. School of Medicine and reported at the Society for Neuroscience meeting says three pesticide active ingredients attack human mitochondria. Rotenone, which is also toxic to mitochondria, has been cited as a potential contributor to Parkinson’s disease, but no relationship has been drawn from the three pesticides’ active ingredients tested—pyridaben, fenazaquin and fenpyroximate. Mitochondria are described as the “power plants that provide all cells with energy.”

**METHYL BROMIDE UPDATE**

Montreal Protocol signatories failed to approve the US request to increase its use of methyl bromide in 2005 from the baseline figure of 30% to 38.2% at a UN-sponsored meeting in Nairobi, Kenya. As a last ditch effort, the 180 nations that signed the reduction plan will meet in early 2004. In the meantime Congressman George Radanovich (R-MariPOSA, CA) plans to introduce legislation allowing higher usage in violation of the Protocol.

**GROUPS SUE FDA OVER CLAIMS**

The Center for Science in the Public Interest and Public Citizen sued the FDA over its July 2003 policy of allowing more health claims on foods even when the evidence to support those claims is weak or inconclusive. The FDA will also permit claims in which the weight of the evidence suggests the claim is likely false, as long as a disclaimer accompanies the claim.

**EPA BACKS OFF “SENIOR DEATH DISCOUNT”**

The Bush EPA recently proposed recalculating the effects of pollution so that an older person’s life is worth only 63% of a younger person’s life. By that formula, power plant emissions cause fewer American deaths per year. In response to media coverage and outrage by seniors at “listening sessions,” the EPA said it will no longer use this calculation.

**WHO URGES END TO GROWTH-PROMOTING ANTIBIOTICS**

The World Health Organization has urged nations to “phase out the widespread and controversial use of antibiotic growth promoters in animal feed”; this action will “help preserve the effectiveness of antibiotics for medicine…without significant expense or health consequences to farm animals.”

**CONSUMER TRENDS**

A nationwide survey released in May 2003 showed that approx. three-quarters of Americans are concerned about the presence of antibiotics in meat production when they shop for beef and poultry. Less than one-half are aware that beef and poultry purchased at supermarkets are commonly raised on feed containing antibiotics.

A survey of 4,014 Ohio residents conducted by Ohio State U. asked respondents to rank seven perceived food safety risks. Pesticide residues in food was ranked first, followed by drinking water contamination, growth hormones in meat or milk, bacterial contamination, bioterrorist attacks on the food supply, mad cow disease, and genetically modified foods.


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**CDFA PEST & DISEASE INFO ONLINE**

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GE CROPS GIANT MONSANTO PULLS OUT OF EUROPE
Monsanto, the American pioneer of genetically modified crops, said recently that it was pulling out of its European cereal seed business. The move was widely seen as a sign that it has given up hopes of introducing GE cereals in Europe. It announced its decision on the eve of the publication of results of farm-scale British evaluations of GE crops, the final and most influential part of the government’s investigation into whether to allow GE crops to be grown commercially. Two other government reports on the economic benefits of growing GE crops and on scientific understanding of their environmental and health effects have also failed to present a strong case for rushing into commercial GE cultivation. Monsanto’s announcement that it wants to sell its cereal development stations at Cambridge, England, and in France, Germany and the Czech Republic, followed hardening resistance to GE crops throughout Europe. Anti-GE lobbyists said the withdrawal was a sign that Monsanto was “throwing in the towel” in Europe.

JAPAN WHEAT BUYERS WARN AGAINST BIOTECH WHEAT IN US
The premier export market for American wheat could be destroyed if the United States approved production of a genetically modified variety of the commodity, a Japanese industry official said in early September. In the year that ended March 31, Japan bought nearly 2.5 million tons of US wheat, slightly more than half of its import needs, according to the US Wheat Associates, which promotes sales of American wheat abroad. St. Louis-based Monsanto Co. has asked the US and Canadian governments to approve an herbicide-tolerant biotech wheat hybrid. Members of the Japanese Flour Millers Association are beginning a week-long visit to the United States to meet with federal regulators and to assess the quality of the US wheat crop in North Dakota and Oregon. The group accounts for about 90 percent of the wheat milled in Japan.

USDA REPORTS 115 INFRACTIONS OF BIOTECH RULES
US biotech companies and research universities have violated strict federal regulations on planting experimental genetically modified crops more than one hundred times in the last decade, the Agriculture Department said recently. The department published for the first time the number of violations the biotech industry has committed when planting GE corn, soybeans, wheat and other crops not yet ready for commercialization. With more and more biotech companies targeting GE crops for uses other than feeding humans and animals, the USDA said it wanted to make its enforcement actions more transparent to the public. Environmental groups said they have sought these documents for more than four years through the Freedom of Information Act.

GREEN GROUPS SUE USDA TO STOP BIO-PHARM PLANTING
A coalition of environmental groups and consumer advocates sued the US Department of Agriculture in federal court in November to try to halt the experimental planting of biotech crops engineered to make medicine. Environmentalists, consumer advocates, and food industry groups have urged the USDA to impose stricter regulations on pharmaceutical crops, fearing the unapproved plants could accidentally slip into the food supply. Biotech companies like Dow Chemical Co. and Monsanto Co. have experimented with corn, soybeans, tobacco, rice, and sugar crops as a cheaper way to mass-produce medicines to treat a range of human ailments. The coalition, which includes Friends of the Earth and the Center for Food Safety, accused the USDA of allowing the experimental crops to be planted in open fields without assessing the risk to other crops, wildlife, and humans.

CONFUSION, IGNORANCE ABOUT BIOTECH
Americans appear to know less about biotech foods than they did two years ago—and much of what they do “know” is wrong, according to nationwide survey results released in September. Research for the Pew Initiative on Food and Biotechnology found that even though an estimated three-quarters of processed food on grocery store shelves contains genetically engineered ingredients, only 24 percent of survey respondents believed they had eaten such food. Nearly half opposed introducing biotech foods into the nation’s food supply—something that was done years ago. Among its clearest conclusions, however, was that consumers want the US Food and Drug Administration to take a more active role regulating genetically engineered foods. About a decade after the first
biotech foods were introduced, the industry remains largely self-regulated on questions of food safety. Most consumers don't know anything about government regulation, according to the new survey, but they aren’t comfortable with the FDA’s voluntary consultation program that allows companies to submit only a research summary.

**Scientists Fret over Weeds’ Growing Resistance to Roundup Herbicide**

“Farmers are planting too many Roundup Ready crops,” said Stephen Powles, an expert on weed resistance at the University of Western Australia. Should weed resistance become widespread, he said, “The problem will become a crisis.” In 1996, Australia was the first to note that weed resistance to glyphosate was developing in rigid ryegrass found in a few grain and sorghum fields. Five years later, South Africa reported seeing the resilient rigid ryegrass had infested a few hundred acres of vineyards. In 2000, University of Delaware scientists reported that in some soybean fields, mare's tail was resisting glyphosate. Since then, resistant weeds have been reported in Indiana, Kentucky, Maryland, New Jersey, Ohio, Arkansas, Mississippi, Tennessee, Iowa, Illinois and Missouri.

**Judge Rejects Class Action Against Seed Producers**

A federal judge denied class-action status to an antitrust lawsuit that accused some of the world's biggest agricultural seed companies of conspiring to fix prices. The decision is a severe blow to a case brought in 1999 by some of the nation's most prominent antitrust lawyers, who accused the Monsanto Company and other big agricultural seed makers of trying to control the booming market in genetically altered seeds in the 1990’s. Judge Rodney W. Sippel of Federal District Court in St. Louis wrote in a 20-page ruling that the plaintiffs had not provided “common evidence” to show that a broad class of farmers had been affected by the conspiracy described in the suit. Judge Sippel sided with the companies, who argued in April that the pricing data for seeds was so varied, complicated and tied to geography, seed types and other conditions that there seemed no way to prove that a large group of farmers were affected. The lawyers who brought the antitrust suit on behalf of a group of farmers said they planned to appeal.

**GE Corn Spreading in Mexico**

Contamination of Mexico’s corn by genetically modified varieties, including the banned StarLink, is much more widespread than previously reported, according to a new study sponsored by a coalition of indigenous and farmer groups. The study also found that some plants contained two, three and four different GE types, all patented by transnational biotechnology corporations. Mexico prohibits planting of GE corn anywhere in the country in a bid to protect the plant that originated in the country, and which has become one of the world's most important food crops. The contamination is likely the result of farmers planting some of the five to six million tons of US corn bought by Mexico or sent as food aid, according to Silvia Ribeiro of the environmental non-governmental organization (NGO) ETC Group. The coalition used commercially available GE test kits on some 2,000 plants (in 411 groups of samples), from 138 farming and indigenous communities. Working with biologists from the National Autonomous University of Mexico, they found the presence of transgenes in native corn in 33 communities (24 percent of the total samples) from nine states: Chihuahua, Morelos, Durango, Estado de Mexico, Puebla, Oaxaca, San Luis Potosi, Tlaxcala and Veracruz.


**GE Report compiled by Brian Sharpe, CCOF's GE point-person and Chapter Resource Coordinator.**
**Certification Corner**

**Updates at Home and Abroad**

*By Brian McElroy, Certification Services Manager*

**Changes to the NOP Rule**
Changes to the NOP regulations were printed in the Federal Register on October 31 and November 3, 2003. A summary of materials added to be allowed is listed here; this is only a summary. If you are affected by a product listed here, you should read the full text of the amendment. To read the entire notice go to the USDA website [www.ams.usda.gov/nop/TodaysNews.html](http://www.ams.usda.gov/nop/TodaysNews.html) for November 13, 2003. The CCOF website will provide a direct link to the Federal Register Notice.

**International Trade Updates**
CCOF Certification Services will require that an "import authorization" be in place prior to issuance of an "import certificate." Each member state of the European Union has an established procedure and related documentation for the importation of product from organic agriculture. There has been some confusion in the past when producers obtained "import certificates" prior to the importer obtaining the required "import authorization." The importer is responsible for obtaining the authorization, not the exporter or CCOF producer. The importer must obtain the import certificate. If the authorization is not in place prior to shipment, the product may be stuck on the dock at the port of entry.

**Giberellic Acid (GA)** is allowed for use by CCOF International Standards. GA was previously prohibited by CCOF International due to the European Union regulations 2092/91 prohibition. Since IFOAM allows the use of GA, CCOF has determined that GA will be allowed by CCOF International Standards, but that CCOF Certification Services will notify producers that the product is prohibited in the European Union. CCOF Certification Services will not issue European Union Export Certificates for product where GA has been used.

**Factory Farmed Manure (FFM)** is prohibited by European Union Regulations. There are no CCOF standards that prohibit the use of FFM; however, CCOF Manual Three provides an explanation of what CCOF considers to be FFM in Section 5.5.2 (D). Essentially you should avoid manure from caged poultry or poultry where stocking density is greater than 12 birds to the square meter, and from dairy animals treated with genetically engineered bovine growth hormones.

CCOF inspectors collect information on manure sources for CCOF International Clients and this information is used to evidence CCOF client compliance to EU regulations. If you think that your product could be exported to the EU, then you should verify that your manure source (including the manure in compost) is not from a factory farm. CCOF will accept a letter from your compost or manure provider regarding the source of manure to evidence compliance.

**Summary of Synthetic Substances allowed for use in organic crop production (Section 205.601):**
- Copper sulfate allowed for use as an algicide in aquatic rice systems and for the control of tadpole shrimp. May only be used for tadpole shrimp once in 24 months.
- Ozone gas may be used as an irrigation system cleaner.
- Peracetic acid may be used as a disinfectant (equipment, seed and propagant plant material) also for control of fire blight.
- Pheromones, may be used as insect management. Also EPA List Three inter is allowed for use in passive pheromone dispensers. *(NOTE! Listing still does not allow for use of puffers.)*

**Summary of Synthetic Substances allowed for use in organic livestock production (Section 205.603):**
- DL-Methionine may be used only in poultry production until October 21, 2005.
- Trace minerals may be used for enrichment or fortification only when FDA approved.

**Updates from the November, 2003 Meeting of the CCOF Certification Standards Committee**
The CCOF Certification Standards Committee has approved the following policy statement with regard to the use of brand name products on CCOF Certified Organic Operations.

Producers may use brand name products on the following lists:
- Organic Materials Review Institute (OMRI) Brand Names List ([omri.org](http://omri.org))

Or, with the following labeling:
- US EPA—pesticide products labeled "For Organic Production" ([epa.gov/oppbppd1/biopesticides/registools/organic-pr-notice.htm](http://epa.gov/oppbppd1/biopesticides/registools/organic-pr-notice.htm)).

Producers who use brand name products not listed in the OMRI Brand Names List or the WSDA Brand Name Materials List, or not bearing the US EPA “For Organic Production” label, must provide full disclosure of all active and inert ingredients to
CCOF in order to verify compliance, or a written statement from the manufacturer attesting that the inert ingredients are NOP allowed and/or on EPA List 4. Any products that contain inert ingredient(s) not on the EPA List 4 are prohibited under the National Organic Program sections 205.601(m)(1), and 205.603(e)(1), unless specifically listed as allowed in NOP Section 205.600.

Where a producer or CCOF Certification Services discovers that a brand name product has been used in good faith (all active ingredients complied with the National List) but an inert ingredient is disclosed (with documented evidence) that does not comply, the producer must cease and desist the use of the product. CCOF reserves the right to retain the land and/or crop as certified organic if the infraction is considered to be a minor non-compliance.

Remember! It is the producer’s responsibility to determine if a material meets state and federal requirements before use.
The concept of “critical control points,” originally developed over 40 years ago to protect astronauts from microbial food contamination, can be used by organic processors and post-harvest handlers to optimize their Organic System Plan. “Hazard Analysis and Critical Control Points,” or “HACCP,” is now applied not only to microbial hazards like bacteria, but also to physical hazards, like metal shards, and chemical hazards, like toxins. The concepts introduced by HACCP protect consumers from food safety hazards by identifying and monitoring critical control points. They can be adapted by organic businesses to protect organic integrity by identifying and monitoring organic control points (OCP). Both HACCP and OCP concepts can be used by the entire organic food production system: growing, harvesting, post-harvest handling, processing, packaging, shipping, retail stores and food service businesses.

Organic Integrity, OCPs & Organic System Plans

Organic integrity can be defined as the qualities of an organic product that come from adhering to organic standards. Organic integrity starts in the field and must be maintained by the food handling system to the point of final sale. The concept of organic integrity is included in National Organic Program standards and in CCOF’s International Standards, which were adopted from the American Organic Standards. For example, the preamble to the National Organic Program states, “The requirements for prevention of commingling and contact with prohibited substances, and labeling requirements protect the integrity of organically produced products.” An Organic System Plan describes how a producer or processor intends to maintain organic integrity. Similarly, the goals of an OCP program are to identify where organic integrity could be compromised, and to establish monitoring procedures to prevent it. A well-written Organic System Plan includes identification and monitoring of organic control points, even though those terms may not be used. OCP programs can prevent costly and embarrassing recalls and help companies produce a product of the highest organic quality and integrity. First we will explore how HACCP programs are set up, and then show how OCP programs can use some of the same principles to protect organic integrity.

Benefits of HACCP Programs

HACCP programs reduce outbreaks of food borne illnesses or injury by emphasizing monitoring procedures and preventative measures to prevent potential food safety hazards. HACCP has been adopted throughout the food processing industry as an exemplary food safety program. The USDA requires HACCP for plants that slaughter or process meat, poultry, or fish and for low acid canneries. Other segments of the food processing industry have set up voluntary HACCP programs because of their proven value. HACCP programs can virtually eliminate the need for snapshot, hit-or-miss food safety inspections and end-product testing for pathogens or hazards. Instead, HACCP programs systematically identify the causes of biological or physical hazards, and monitor those specific points in the manufacturing process where they can occur. When properly implemented, HACCP provides a record that all reasonable precautions have been taken to prevent hazardous food from reaching the consumer. HACCP encourages consumer and regulatory confidence in food safety.

Starting a HACCP Program

To work well, management must be committed to the HACCP system. Company leaders must recognize the value of delivering safe, high quality products, understand the principles and practices that make it successful, and impart that commitment to employees. Employees must recognize their role in producing safe food. Only when employees are trained and the program is incorporated as an integral part of the quality system will it be truly successful.

The first step in setting up a HACCP program is to review the unique conditions in

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**Organic Critical Control Points in Food Processing**

**Presentation at the 24th Annual Eco-Farm Conference**

Asilomar, Pacific Grove, CA

Friday, January 23, 2003 • Workshop Session E, 1:30–3:30pm

Organic Critical Control Points analysis is an extension of Hazard Analysis and Critical Control Point (HACCP) analysis that many large and small processors use to determine places or activities during food processing where food-borne illnesses could be introduced, allowing the implementation of control measures. This workshop will first cover the essential concepts of HACCP analysis, and then apply these concepts to cover Organic Critical Control Points.

**Presenters:** JANNING KENNEDY, CCOF, Santa Cruz; MIKE WISE, Wiseguys Consulting, Clovis

**Moderator:** BRIAN LEAHY, CCOF President
the food processing or handling facility. The product is defined, including who consumes it, and how (for example, will it be consumed by infants or the elderly? Will it be cooked, or frozen, or eaten raw?). All ingredients, production aids, and packaging are identified. A flow diagram is developed which describes the process. The flow diagram provides a simple, complete outline of the steps involved, like receiving, storage, processing, packaging, warehousing, and shipment. A block type flow diagram is usually used.

**Applying HACCP Principles**

Once the product is defined and the flow chart written, the HACCP principles can be applied. There are seven principles of HACCP:

1. Analyze the hazards
2. Identify the critical control points
3. Establish critical limits
4. Establish critical control point monitoring procedures
5. Establish corrective actions
6. Establish verification procedures
7. Establish record keeping or documentation procedures

In the first step, conducting a hazard analysis, the flow diagram is used to identify potential biological, physical, and chemical hazards. For example, salmonella, a moderate-to-serious food borne infection, can be caused by ingestion of only a few cells of Salmonella. Salmonella may be identified as a hazard in a product that contains liquid eggs. Each hazard is assessed to determine its potential severity and whether it is “reasonably likely to occur.” Hazards that are likely to occur are included in the HACCP plan.

If the potential hazard were inconsequential or not reasonably likely to occur, it would not be included.

For each hazard, critical control points are determined. Critical control points are the steps at which control can be applied. The control that will be applied is essential to prevent the food safety hazard, or reduce it to an acceptable level. Examples might be cooking or freezing.

For each critical control point, critical limits must be defined. A critical limit is the maximum or minimum value to which a hazard must be controlled to prevent or reduce it to an acceptable level of risk. For example, in a cooked food, this might be the minimum cooking temperature and time required to eliminate Salmonella. Setting critical limits for food safety may involve research into scientific literature or government regulations.

Once critical limits are defined, procedures are established to monitor the critical control points. This might include determining how and by whom cooking times and temperatures will be monitored.

Corrective actions are established that will be taken when monitoring shows the critical limit has not been met. Corrective actions are those that would remedy the problem. This might include reprocessing the food or disposing of it if the minimum time and temperatures were not met. When a breach of the critical limit is discovered, it is important to determine the cause of the deviation and eliminate it. Measures to prevent recurrence must be established if the problem could reoccur.

Next, procedures are established to verify the system is working. An example might be calibrating and testing the temperature and time recorders to verify each cooking unit is working properly, or observation of the monitoring activities and corrective actions to be sure they are implemented properly.

Record keeping, the final principle, documents the HACCP system. Records include the written HACCP plan and decision-making documents used in its development, which justify critical limits. It includes actual data collected, documenting the monitoring of critical control points and critical limits. Records of the corrective actions are necessary, such as the reason for holding a suspected product, how and when it was reprocessed or disposed of, and who was responsible. Records also include documents of the verification procedures.

**Starting an OCP Program**

Like a HACCP program, an OCP (Organic Control Points) program also requires commitment from top managers to be effective. The company must communicate the importance of maintaining organic integrity to all employees who handle organic products. There must be a sense of dedication throughout the company to producing organic products that meet the highest standards of integrity.

To start an OCP program, a flow diagram is needed. The same one may be used as for a HACCP program, but it will be analyzed differently. Instead of food safety hazards, the flow diagram will be analyzed for organic integrity hazards. The three ways organic integrity can be compromised are through...
commingling with non-organic foods, contact with prohibited substances (those not on the National List of Allowed Substances), and mislabeling. Each organic integrity hazard is assessed to determine whether it is reasonably likely to occur. If it is, it must be addressed in the OCP plan.

For each organic integrity hazard identified, organic control points are determined. Organic control points are where control can be applied to prevent the loss of organic integrity. For example, if a company receives both organic and non-organic products, an organic control point would be at receiving, where proper control can prevent or reduce the possibility of receiving non-organic products as “organic.”

HACCP programs include the concept of “critical limits.” In some cases, the critical limit is zero. For example, where metal fragments are identified as a hazard there is zero tolerance for metal fragments. For an organic system, the critical limit is zero for all three organic integrity hazards. There is no tolerance for commingling, contact with prohibited substances, or mislabeling under organic standards. Thus, in our example, the critical limit for receiving non-organic product as “organic” is zero.

The next task is to establish procedures to monitor the critical control points. In our example, this may be a requirement that delivery tags for organic products are marked “organic” by the supplier, and include field identification. It may include training receiving personnel to check prepared lists of organic suppliers and field identifications.

When monitoring activities show that the critical limit is breached, there must be corrective action. This involves having a plan or procedure to follow if the system fails. For example, for product believed to be “organic” but not correctly identified on the delivery paperwork, there may be a procedure to isolate the product until its identity can be confirmed. There should also be a review to find ways to prevent the problem from occurring again.

Procedures to verify the OCP system is working are necessary. This might include reviews of total product received against estimates, or periodic oversight by supervisors. As for HACCP systems, maintaining an effective OCP system depends on regularly scheduled verification activities.

Organic operations are required to keep records that verify compliance with organic regulations. The records developed through establishment of an OCP would likely be the same as those required under the National Organic Program. The Organic System Plan would document the development of the OCP. The OCP plan should be updated and revised as necessary. Records of monitoring the organic control points, verification, and corrective actions would be part of the required records maintained by a compliant organic operation.

The organic food industry can increase consumer and regulator confidence in the organic integrity of their products by using OCP principles. OCP principles parallel HACCP, an internationally accepted and rational approach to food safety. By applying the seven principles of HACCP analysis to organic integrity issues, organic business owners can understand how to improve their unique processing or handling systems to maximize adherence to organic principles and regulations.
Introducing:
The COFI Food Web Program

California Organic Fertilizers, Inc. utilizes food web-compatible inputs to increase/improve the physical and biological structure of the soil resulting in improved yield and quality.

Please feel free to contact COFI at (800) 269-5690 for further information on this exciting and innovative program.

Phyta-Guard
Natural Insecticides/Fungicides/Repellents

- Phyta-Oil Insecticide/Repellent
  Also available with Garlic
  and/or Citronella

- Phyta-Guard Concentrate
  Insecticide/Repellent

- Phyta-Guard WP
  Fungicide/Insecticide

- Phyta-Guard EC
  Fungicide/Insecticide

Phyta-Guard Organic Products
Are Made From 100% Natural Ingredients
REPORT ON THE NOSB MEETING
OCTOBER 22–24, 2003
By Zea Sonnabend

The fall meeting of the NOSB focused on the materials review process. The board has the responsibility to make recommendations regarding materials used in organic production systems and handling based on criteria that are set out in the Organic Foods Production Act. To make those recommendations the board receives petitions for substances to be added to the National List and then sends those petitions to be reviewed by a Technical Advisory Panel (TAP), which is administered by a contractor assigned by the NOP.

Many weaknesses have been brought to light in the current process and so the board spent the whole meeting reviewing the current system and exploring ways of improving it. The NOP has been plagued in the past by poor documentation of the materials decisions, due to poor minute taking, lax policies around the voting procedure, and incomplete information from the TAP reviews. The NOP stated that it is very important for them to have proper documentation and justification of the decisions so that they are not challenged later by special interests. To meet their requirements we used new templates developed by the NOP to evaluate all of the materials.

The NOSB prepared a working draft of the “Compatibility/Consistency with a System of Sustainable Agriculture/Organic Production”, which was posted on the NOP website after the meeting. The objective was to develop criteria that would be evaluated during the TAP review process to determine if a particular substance is compatible with sustainable agriculture and organic production systems. This document is below. The NOSB also used some new form templates that the NOP developed to re-evaluate all of the materials that were voted on during their last meeting.


In order to determine if a substance, its use, and manufacture are compatible with a system of sustainable agriculture and consistent with organic farming and handling, and in consideration of the NOSB Principles of Organic Production and Handling, the following factors are to be considered, when applicable:

a) Does the substance promote plant and animal health by enhancing soil physical, chemical, or biological properties?
b) Does the substance encourage and enhance preventative management?
c) Does the substance promote the use of renewable resources and recycling, and reduce dependency on external inputs?
d) Does the substance have a positive influence on the health, natural behavior, and welfare of animals?
e) Does the substance satisfy consumer expectations regarding the authenticity and integrity of organic products?
f) Does the substance promote the economic viability of organic farm operations?
g) Is the substance mined, manufactured, or produced through reliance on child labor or any violations of International Labor Organization (ILO) conventions?
h) Is use of the substance consistent with other listed uses of the substance?
i) Is the substance consistent with other substances historically allowed or disallowed in organic production and handling?
j) What are the experiences in foreign markets with use of the substance?
k) Is the substance compatible with the Precautionary Principle? i.e. when a substance, its use, and manufacture raise concerns, precautionary measures should be taken when scientific data is not fully established. The proponent of a substance should bear the burden of proof to demonstrate compatibility.

Crop production is enhanced by routine use of fine-grade high quality gypsum

GOOD STUFF GYPSUM™
Guaranteed Analysis…100% Calcium Sulfate
“CERTIFIED ORGANIC”

There are over 30 known benefits to plants and soils by applying high analysis Art Wilson Company Gypsum

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www.awgypsum.com
## OMRI BRAND NAME PRODUCTS LIST UPDATE
### DECEMBER 2003

<table>
<thead>
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A=Allowed; R=Regulated                                      © 2003 Organic Materials Review Institute continues next page
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A=Allowed; R=Regulated

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COMMUNITY SUPPORTED AGRICULTURE: RESOURCES AVAILABLE AT THE ROBYN VAN EN CENTER
www.csacenter.org

CSA brings together community members, farmers and agricultural land in a relationship of mutual support based on an annual commitment to one another, a commitment that ensures the survival of local agriculture today and for future generations. The Robyn Van En Center offers a variety of services to existing and new CSA farmers and shareholders nationally.

Links and information include: The National CSA Farm Directory; resources, referrals, links; publications, products; online postings of events, positions and information; technical assistance and support.

In addition, the Center answers inquiries from across the nation and around the world. It administers a biennial CSA farm census and reports findings. It does outreach and publicity about CSA and co-sponsors a biennial CSA conference. Although modern technology can be a great tool, it is ultimately grass roots action and networking that will grow the CSA movement and help CSAs thrive. You can help: keep the database up to date; contribute articles, research papers and clippings for posting and for the library; donate to the Center to help support these valuable services.

THE ORGANIC PRICE INDEX
www.newfarm.org/opx

The Organic Price Index, the OPX™, is a comparison of conventional and organic prices for 40 products, from grains to vegetables. Browse fruit, vegetable, grain, meat and dairy prices. The OPX™ Plus has organic pricing for additional fruits and vegetables. There are no conventional comparisons available for these additional items, and the items vary from week to week.

The OPX™ is a comparison of terminal market, other wholesale and selected large-scale retail prices for organic and conventional foods and sustainably raised meats. It is updated on Tuesday of each week and represents prices for products gathered on Monday of the same week from markets on the East and West Coasts.

This index will use the best available data on the developing wholesale markets for certified organic fresh produce and grains, as well as the emerging national market for certified organic dairy and self-identified sustainably raised meats.

All prices quoted represent wholesale costs except for meats and dairy categories. During some weeks prices will not be available for some products. Availability of product is highly dependent upon factors such as weather and seasonality. This is especially relevant for fruits and vegetables.

Great care is being taken to provide data that is compatible and comparable. NewFarm has selected products that are generally available in organic and conventional wholesale markets in the same geographic location and marketing area. Over time NewFarm will add new products as data becomes available.

GROWING ORGANIC WINEGRAPEs SUCCESSFULLY


An introductory handbook for winegrape growers interested in converting to organic farming is now available from CCOF Certified Fetzer Vineyards. Written by L. Ann Thrupp, Ph.D., Manager of Organic Development for Fetzer, the 64-page guide is rich with practical advice gleaned from Fetzer’s experience in farming 2,000 acres of certified organic grapes, and from Dr. Thrupp’s experiences working with a variety of organizations and wineries.

Handbook chapters move logically from basic concepts and principles of organic farming, through steps necessary to become a certified organic grower and build with practical how-to chapters on soil and fertility management, biodiversity, weed and pest management and other sustainable farming practices. It is designed so growers can add resources and information as they become more involved with organic farming.

Also included are information resources, websites, suppliers, consultants and vendors for organic products. The handbook complements the workshops which have been conducted recently for more than 150 growers by the UC Davis extension office and Fetzer, and both are part of a grower relations program designed to help growers meet Fetzer’s goal of purchasing only certified organic winegrapes by the end of the decade (Organic 2010) for all wines produced at the winery.

The handbook is available for $20, plus tax and shipping (total $25). For order forms contact Ann Thrupp or Gloria Seeley at (707) 744-7600 or download the order form found at www.Fetzer.com.
Nature Safe offers a complete line of OMRI listed products specifically formulated to deliver unparalleled soil and plant nutrition and fertility efficiency. Manufactured by Griffin Industries, a leader in the production of quality animal and plant health ingredients since 1943, Nature Safe offers the highest nitrogen organic fertilizers available. Discover why successful organic farmers are making Nature Safe their Natural Choice for optimum soil and plant nutrition!

**OMRI listed formulations:**

<table>
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<tr>
<th>12-2-0</th>
<th>10-2-8</th>
<th>9-4-0</th>
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<tr>
<td>8-5-5</td>
<td>8-3-5</td>
<td>5-6-6</td>
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</table>

All products contain chelated phosphorus and calcium as well as a host of trace minerals, micronutrients and biostimulant sources. Contains no manures or waste by-products. Nature Safe operations have been certified through Audubon’s Cooperative Sanctuary Program validating our commitment to stewardship excellence.

For more information on our OMRI Listed products contact us at:

(800) 252-4727 • www.naturesafe.com
**NEWLY CERTIFIED MEMBERS**

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<td>A&amp;A MANAGEMENT CO.</td>
<td>Walnuts, Wine Grapes</td>
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<tr>
<td>AGROVICE, INC.</td>
<td>Wine Grapes</td>
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<td>ANTHONY &amp; CAROLYN MARCHETTI</td>
<td>Mushrooms</td>
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<td>ARROYO SECO VINEYARDS WINEYR, INC.</td>
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<td>CONCORD FARMS INC</td>
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<td>ENCOX INC</td>
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**INACTIVE**

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Due to space limitations, Withdrawn and Decertified Operations for these dates are included in the online version of this Magazine. [www.ccof.org](http://www.ccof.org)
FOR SALE
Established 40-acre CCOF Certified Organic (since 1987) Farm in Northern Sacramento Valley, 15 miles north of Chico.
- Class I Vina Loam Soil. Solid set irrigation throughout. Walnut Orchard in 3 blocks: Hartley—17 acres (1988); Chandler—8 acres (1995); Chandler—10 acres (1999). 64 fruit trees (including several varieties of peaches; cherries; plums; Fuji apples); 1 acre asparagus; table grapes.
- 7,000 Sq. ft. barn and outbuildings. Air-conditioned upstairs office; walk-in cooler (12’x16’); shop; greenhouse.
- Also: JD-2640 Tractor and orchard equipment (flail mowers, brush shredder, manure spreader, airblast sprayer).

Serious buyers only. $725,000. sandiaman@rediffmail.com (please allow 1–2 week delayed response time)

Certified Organic Wild Rice: The wholesome, healthy, hearty, gourmet grain. Bulk processed, graded, black or scarified (15 min). B.C. McKenzie/McKenzie Farms, CCOF grower. 916-655-3367 or 916-709-7885, Fax: 916-655-3344.

Available from FMP Vineyards: Premium Organic Jumbo Raisins (Thompsons & Flames) available year round, Organic Table Grapes in season. Please contact legacy@cybermesa.com for pricing.

FOR LEASE/RENT
Approximately 80 acres for lease, all or part, 10 miles south of Hollister, CA. Flat, excellent ground. Never farmed. Plenty of water. Russell, 831-638-3807, kssrre@yahoo.com


Acreage & facilities for rent: Formerly Fiddler’s Green Farm (status: “inactive”) in Brooks, CA. 25 acres CCOF certified since 1982. Incl. ag well w/pumps, packing shed, coolers, barn, pole barn, plus 1.75 acres mature asparagus. $600/mo. Some equipment for sale. Housing also available for rent, $700/mo. Call Jim @ 530-796-2184.

SERVICE
Custom Organic Nut Roasting, Dicing, Flavoring & Butter. Packaging from 3oz. cellophane to 30 lb. VacPack. QAI certified, Kosher. Reliable service and quality finished products. E-mail matt@cache creekfoods.com or call 530-662-1764.
CALENDAR

JANUARY 21–24
Ecological Farming Conference. “Real Security Begins with Healthy Farms & Clean Water.” This event encourages active participation by people of all backgrounds and ages in the process of creating a healthy food system. CCOF’s own Brian Leahy, Brian McElroy, and Janning Kennedy will present a variety of information at different workshops. Asilomar Conference Center, Pacific Grove, CA, 831-763-2112, info@eco-farm.org. www.eco-farm.org

JANUARY 24
Antique Faire in the Park. Antique faire with an organic beer & wine garden. All proceeds from beer & wine garden benefit CCOF SF County Fair Building in Golden Gate Park, San Francisco, CA, 10:30AM–5:00PM.

JANUARY 29
2004 Cal Poly Ag Showcase. Over 55 companies from California and around the country attend. Cal Poly, San Luis Obispo, CA, 530-514-8820 or 209-480-4387, tamador@calpoly.edu

FEBRUARY 3–5
Colusa Farm show. Farm equipment services and materials. Colusa Fairgrounds, Colusa, CA, 831-423-2263 ext. 21.

FEBRUARY 6

FEBRUARY 10–12
World Ag Expo. Largest farm equipment show in the world offers agriculture’s best equipment, technology, products, and services from more than 1,600 exhibitors. Tulare, CA, www.worldagexpo.com

FEBRUARY 13
CCOF 30th Anniversary Celebration. Dinner followed by bluegrass music by StrungOver. Monterey, CA, more info, ccof@ccof.org, 831-423-2263 ext. 21.

FEBRUARY 27
Environmental week at Lawton Elementary School. Children will have a “scavenger hunt” of learning questions for each booth. All grade levels will attend. San Francisco, 9:30AM–12:30PM. More info, Deborah Netkin, 415-759-2832.

MARCH 5–6
Passive Solar Greenhouse Workshop. Learn how to produce food year around without fossil fuel heat. Spring Grove, PA. More info, Steve & Carol Moore, 717-225-2489, sandcmoore@juno.com

MAY 7–9

SEND CALENDAR SUBMISSIONS TO:
Lisa Stutey
• e-mail: lisa@ccof.org
• U.S. Mail: 1115 Mission St.
  Santa Cruz, CA 95060
• Phone: 888-423-2263, ext. 10
• FAX: 831-423-4528

LAST WORD

“...How we eat determines to a considerable extent how the world is used...”

~ Wendell Berry (b. 1934)
American poet, novelist, essayist, philosopher and farmer